

LAND-RECLAMATION IN ITALY

Rural Revival in the Building of a Nation

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TRANSLATED FROM THE ITALIAN BY
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To reclaim the land, and with the land the men, and with
the men the race.

MUSSOLINI.

The hopes and energies of the peoples should turn to the
earth so as to draw from this primary source of prosperity,
from this self-filling reservoir, the regenerating energy which
must restore the serenity and wealth of the world.

MUSSOLINI.

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AUTHOR'S NOTE

IN presenting this account of Italian achievements and legislation in the field of land-reclamation, the Author wishes to express his thanks to Professor Arrigo Serpieri for the invaluable help given in the preparation of this work during his term of office as Under-Secretary of State for Land-Reclamation.

ROME—3rd. SEPTEMBER, 1934.

TRANSLATOR'S NOTE

IN seeking English equivalents for some of the technical Italian expressions used in the legislation dealing with land reclamation we have decided to use the word "circumscription" as being the nearest to the Italian *comprendorio*, which indicates an area delimited for reclamation purposes, "consortium" for *consorzio*, the term used for many centuries in Italy to designate the associations of landowners formed for reclamation or similar purposes, and "integral" for the Italian *integrale*, the adjective used to designate the complete organic character of present reclamation works which embrace all the several operations required for transforming a malarial swamp into a populated farming district.

TABLE OF MEASUREMENTS

1 Italian lira	0.216	English gold shilling.
1 " "	5.263	U.S. gold cents.
1 millimetre	0.03937	inch.
1 metre	1.09361	yard.
1 metre ³	35.315	cub. feet.
1 litre	0.21998	imp. gallon.
1 kilometre	0.62137	mile.
1 hectare	2.47109	English acre.
1 "	2.47103	U.S. acre.
1 ara	0.02471	acre.
1 sq. kilometre	0.3861	sq. mile.
1 kilogram	2.20463	lb.
1 quintal	220.463	lb.
1 ton	1.10231	short ton.
1 "	0.98421	long ton.
1 quintal of wheat	3.67431	bushel.
1 " " rye	3.93685	"
1 " " barley	4.40917	" English.
1 " " "	4.59306	" United States.
1 " " oats	5.65291	" English.
1 " " "	6.88942	" United States.
1 " " maize	3.93685	"
1 kg. per hectare	0.89217	lb. per acre Eng.
1 quintal per hectare	89.217	" " " "
1 " of wheat per hectare	1.48692	bushels per acre Eng.
1 " " rye " "	1.59316	" " " "
1 " " barley " "	1.78430	" Eng. per acre Eng.
1 " " " " "	1.85876	" U.S. " " U.S.
1 " " oats " "	2.28762	" Eng. per acre Eng.
1 " " " " "	2.78808	" U.S. " " U.S.
1 " " maize " "	1.59316	" per acre Eng.

CHAPTER I

TOWARDS HIGHER STANDARDS OF LIVING

THE world-wide depression has not made us lose heart. It is impossible to believe that mankind has reached a point when there is nothing to be done but to sit by the wayside warning the on-coming generations to turn back because there the road ends and the world goes no farther.

On the contrary, there are many indications that the present depression marks a final stage in the elaboration of a new civilization bringing with it a life of higher spiritual and material content.

Sceptics have always looked askance at progress. But in attempting to defend at all costs a past which is disappearing they are unjust and cruel; such action either means that the past had attained perfection or else it means that its specific defects are to endure for ever. The cruelty implied in such a view reveals its underlying egotism.

Perfection is an ideal ever pursued but never attained on earth, for it is characteristic of man that as he ascends his ideals are purified and rise ever higher.

Following on a period of astounding technical and scientific progress, obtained through specialization and analysis, a stage has been reached when full use of the new discoveries demands co-ordination and synthesis.

It is not therefore a question of replacing one discovery by another, certain groups of persons or interests by others, but of re-co-ordinating them. The particularism of this or that branch of science, of this or that technical process, division into groups and classes, is making way for an organic conception of a living system.

We are returning to something analogous to the ancient conception which amalgamated all the various branches of learning in philosophy, defined by its very name as "the friend of knowledge."

The present volume is neither a philosophical essay nor a political treatise. It is merely a description of integral land-reclamation as carried out in Italy.¹ And here it should be noted that if a keen interest is taken in Italian land-reclamation, not only by foreign specialists but by persons engaged in many activities—political, social, financial, industrial, medical, humanitarian, historical, journalistic, educational, etc.—this is because it affords a practical working example of the principles of guild or corporative economy, thus throwing light on a new and efficient organization of human activities. Considered from this point of view, land-reclamation is one of the most encouraging phenomena of our day, for it points to the direction in which a new civilization is being built up. Indeed, by co-ordinating time-honoured factors with up-to-date scientific and technical discoveries which allow of increased production and higher standards of living, integral land-reclamation is enabling man to overcome adverse conditions which for centuries foiled all attempts at improvement, and to modify the geographical, hygienic, economic and social conditions of whole zones.

* * * * *

As scientific knowledge progresses and with it the principles of social justice, unilateral schemes are replaced by more harmonious and complex ones. History and

¹ It is written in reply to enquiries constantly made about integral land-reclamation in Italy. As these enquiries come from all parts of the world and have different aims in view, the contents of this book fall into two parts: (a) to the first, of general interest, belong the speeches of the Duce, showing the full import of the historic period in which integral land-reclamation is framed, and the spirit which animates it, making success possible, and Chapters I, II and III giving a general sketch of the work; (b) the other chapters describe the organization of integral land-reclamation, the results obtained, and the theoretic basis of the principal problems dealt with, and an appendix gives the legislative texts. They are also useful to students interested in special aspects of the work, with a view to the needs of their own countries.

philosophy will, in due time, distinguish what is new in these modern developments from what can be traced back to age-long experience.

Life, thought, material facts themselves, contain permanent unchanging elements alongside others destined to renewal or decay. Progress adds to the permanent and unchanging elements new discoveries, more harmonious adjustments, higher ideals.

All progress, therefore, begins by a return to the past, reviving and utilizing to better purpose the lessons it taught; and the ascent is resumed, starting from the primal sources of civilization. Contact with the soil is renewed, and consideration is once more given to the causes of events, their nature and mutual relations.

We are witnessing a return to Mother Earth. To-day more than ever the problems of agriculture are seen in all their fundamental importance and that veteran rural economist, Professor Sering, was right when he said: "I am convinced that the recognition of agriculture as the biological, social and economic foundation of every nation will be the permanent effect of the experiences of the World War and the world crisis." The fact is, for some years past Governments everywhere have been seeking a policy which will allow of sound agricultural conditions, as the privileges so long granted to other economic activities have proved unavailing.

It would, however, be a great mistake to suppose that all that is needed is a return to the past. On the contrary a world-wide trend towards a more harmonious co-ordination of systems which tend to grow more complex in the several units composing them is already evident. The trend is no longer towards industrial countries on the one hand and exclusively agricultural countries on the other, but each country resting on a suitable basis, more or less rural in character, will cultivate its own soil in accordance with its own resources in men, sunshine and water, and will be able to secure on more harmonious lines, the diversification of production and consumption.

The more thoroughly the several national economies are diversified the more thoroughly each will complete the other, the more rich and varied the production, the more diversified and wealthy the forms of consumption, the higher the standard of living. Indeed, there is no more encouraging thought than that of the vast progress of which all living standards, even those now considered highest, are susceptible.

A similar trend toward complexity due to diversified production can be noted in the case of the several producing units of the various countries, for while we are witnessing a return to agriculture as the basic industry, great progress is being made in all other branches of activity. And in agriculture itself great are the changes as compared to conditions prevailing only a few years ago.

The up-to-date farmer, while conserving the fundamental characteristics conferred on him by contact with the soil, muscular work in the open air, and the special care he bestows on his farm, can now select from a wide range of forms of associated crop and livestock farming; he uses the resources placed at his service by chemistry and engineering and he avails himself of power in its various forms, among which electric power is that which will lead to the most radical progress. The farmer is no longer isolated: he can avail himself of modern means of communication for his material and intellectual needs. Malarious zones are reclaimed and divided up into farms. A whole new system of civilized life is thus arising, which, while improving rural conditions and increasing the number of families settled on the land, confers on the farmer the skill of the artisan, leading to the formation of a whole new series of productive activities which connect farming up with the other branches of production.

A similar improvement is taking place in the factory. It arose out of the need for centres where heavy machinery could be run by steam-power, reducing to a minimum the need of moving the materials and facilitat-

ing centralized management and control. The new systems of processing, the more powerful and more adaptable sources of power, such as electric current and internal combustion engines, the improved means of communication, the lighter and finer machinery now used, make it possible to organize industry in smaller units, thus, allowing decentralization. The factory system still holds good in those special branches of industry to which it is best suited; iron and steel, ship-building, heavy engineering, large scale testing works, etc., but it is becoming, in its turn, an active agent in the promotion of decentralized activities.

The various branches of production have a tendency to become more closely connected and to intermingle. Modern business is growing more agile, more complex, better suited to diversified production, more readily adaptable to the rapid changes entailed by progress, more fertile in new devices than was the old factory.

We can foresee that a new type of family business, partly agricultural and partly industrial, will arise which will form a connecting link between the farm and the factory, a new social cell combining the functions of family life with those of production. Such concerns conserve the individuality of the worker, they utilize all the labour power of the family, take full advantage of the adaptability of electric power, and ensure that due care is taken of the savings invested in equipment. They can readily adapt themselves to changing market conditions by enlarging or reducing their output, and in times of grave depression they can limit it to what is required for family needs, thus avoiding the evils and sufferings caused in our day by unemployment.

A new organization of agriculture and industry is thus arising which, while strengthening the former system in its essentials and preserving its more valuable features, opens up new possibilities.

It would be superfluous to insist on the solidarity existing between the organization of production and consumption, between output and living standards, be-

tween the union of agriculture with industry and the progress of all human faculties.

Past stages may serve as a guide and a measuring-rod for future developments. We need only reflect how deeply the history of mankind has been affected by the taming of the horse, the hoisting of the first sail, the invention of the wheel. Yet these were exclusively technological factors. Now all forces, all activities are attuned to new spiritual values: distances have been immensely reduced, life has been enriched by resources until quite recently unknown; we are going towards greater unity in ethical concepts, and towards the attainment of a better balanced social system.

CHAPTER II

GENERAL NOTIONS ON INTEGRAL LAND-RECLAMATION

I. DEFINITIONS

THE expression "integral land-reclamation" is used in Italy to denote that aggregate of works resolved on by Signor Mussolini with a view to preserving in a marked degree the rural character of the country, while ensuring higher social standards in sectors of Italian agriculture beset by specially difficult conditions.

A vivid description of integral land-reclamation has been given by Sir Daniel Hall, in a study published in the London *Times* in November 1932, which begins as follows: ¹

The traveller who nowadays is going down to Rome becomes conscious soon after leaving Pisa of new features in the landscape. Here and there along the railway he notices stretches of ploughland dotted regularly with new little houses, white or red, where he remembers there used to be salt marsh or heath. For miles the train runs through this sort of thing nearing Grosseto and Alberese; there is another long stretch to seaward of the line as it turns from the coast towards Rome.

On enquiry he will learn that these settlements are all part of the great national work of "Bonifica" and that there is an exhibition open in the Borghese Gardens in Rome which illustrates what the Fascist Government has achieved during the last ten years. We know little as yet of what the Russian Five Years Plan has accomplished, but here is something so far "done" that the agriculturally minded man must regard as the biggest bit of constructive work since the War ended.

¹ *The Times*, No. 46,294, 18th November 1932, p. 15. See also the leading article "An Example from Italy," published in *The Times*, No. 46,296, 21st November 1932.

"Bonifica" represents the improvement of the countryside in all its aspects.

Professor Serpieri has given ¹ the following definition of integral land-reclamation:

It consists in the co-ordinated execution of all the works required to adapt the land and the water on it to such intensive forms of production as will ensure work and higher social standards to a dense rural population.

The significance of the several factors of this definition will be made clear by the information given in the following pages.

* * * * *

2. INTEGRAL CHARACTER

Land-reclamation works have always been carried out in Italy. Ever since the mountains emerged from the sea, towards the close of the tertiary age, the problem of land drainage arose.²

¹ 14th March 1933, at the opening of the post-graduate school for agrarian hydraulic engineers, annexed to the R. Politechnic Institute of Milan.

² "The emergence of the Appenines, which occurred towards the close of the tertiary age, caused the formation of a great gulf, the present valley of the Po, which during the pliocenic period extended to the west of the Adriatic stretching as far as the base of the Alps and Appenines; the truth of this hypothesis is demonstrated by the fossils found in the Emilian foot-hills, belonging to extinct species of sea-fish and crustaceans.

"At the close of the age of geological upheavals, the raising of the bed of this sea, consequent on sedimentation caused by waste matter deposited by water-courses, led to the formation of the first islands, the first patches of land, gradually prolonged by the matter deposited by successive floods, and broken up into as many zones as there were rivers, torrents, and streams flowing down from the Alps on the one side, the Appenines on the other, and emptying into that great gulf from which, little by little, the sea began to withdraw, while all these affluents formed the Po as their container.

"The originally shorter course of this river is in itself eloquent proof of the fact that the present valley of the Po was only a great inlet of the Adriatic; even in times of which history retains a record, the great river emptied into the Adriatic dozens of miles higher up than the present mouth, and Strabonius and Pliny write of Spina, now a modest village, which had been a considerable Pelasgic city situated on the sea-coast.

"The first peoples who inhabited the downs emerging from the great lake were the Ligurians who dwelt in huts and made stone implements; they were succeeded by the lake-dwellers who introduced the casting of utensils in bronze, until the new Italic peoples arrived who built on the huts of the aborigines new



MUSSOLINI EXAMINING WHEAT GROWN ON THE FORMER MARSHLANDS, LITTORIA,
9 JULY 1934.

Courtesy of Istituto Nazionale LUCE.

In the several periods of history land-reclamation works have reflected the degree of civilization attained by the country, and the extension given to the notion of land-reclamation has varied in relation thereto, but since the formation of the Kingdom of Italy it has been used to signify the draining of marshlands and the protection of their inhabitants from malaria, the other factors being considered as only secondary.

Integral land-reclamation differs from preceding efforts both in its aims and structure, the qualification "integral" implying a complete change of viewpoint.

It is this "integral" character which forms the distinguishing feature of the new land-reclamation, determines its possibilities, makes itself felt in all its manifestations, renders the work manysided, and offers a vast field for studies.

The general conception of society as an integral whole, i.e. of the co-ordination and utilization in time and space of all the forces of the Nation, which is the central idea of Fascism, gives rise to the corporative organization of the State as a political, technical, and economic system. The principles informing the corporative State when applied to land-reclamation have conferred on it an integral character.

From the agrarian standpoint, land-reclamation bedwellings protected by earthworks and surrounded by motes to protect themselves against wild beasts and enemies. The huts opened on the earthworks, adequately guarded against the waters of the river by a wooden bridge built on stakes, all at the same level, and in the centre of the hut was the hearth whose ashes with the remains of food, bones, charcoal, broken crockery, and other refuse were thrown through a trap door into the basin below. In this way large accumulations of muddy greasy soil were slowly formed below the dwellings, known as *terramare*, which by the action of the water were spread in strata throughout the basin.

"In the surrounding fields and on the earth-works, plants and shrubs, grass and wild fruit trees grew affording pasturage for the animals, which killed with arrows or bludgeons, provided food and clothing to the men who later on worked iron, made themselves knives and hatchets, and took to hunting, grazing and agriculture.

"These peoples were undoubtedly the first to reclaim the marshes, and were followed by the Umbri, Etruscans, Celts and Romans." Eng. Antonio Buongiorno, *Le Bonifiche Italiane; cenni storici, tecnici e statistici*, Rome, 1926.

comes integral when extended to cover all the works required to attain the desired purpose. It is no longer a question of carrying out this or that work, by itself and for itself—be it drainage, or irrigation, or protection against malaria, or reafforestation, etc.—but of considering organically, and in their technical, agrarian, and economic aspects, the aggregate of all the works and measures required in the several sectors—be they land settlement, social measures, the reconditioning of mountain-land, the control of water-courses, drainage, irrigation, aqueducts, the breaking up of new lands, the reconditioning and improvement of the soil, experimental work, roadmaking, the erection of villages, buildings, power-stations, the laying of electric lines, etc., for the purpose of preserving—where they already exist but are threatened by physical conditions—but much more frequently for the purpose of introducing the productive systems¹ likely to ensure the most advantageous results

¹ It is advisable to explain at once what is meant by productive system. Professor A. Serpieri, *Guida a ricerche di economia agraria* (Guide to research work on agricultural economics). Istituto Nazionale di Economia Agraria, Rome, 1929, defines it as follows:

“The expression ‘land production’ denotes agricultural production proper, as well as pastoral and forest production. . . . Land production is carried out by enterprises: by which term we mean the combined *means of production* with which the physical or moral person of the entrepreneur obtains production at his own risk. Economically speaking, the risk factor is that which characterizes and distinguishes the entrepreneur.

“When the physical, territorial basis of the enterprise is stressed (soil, buildings, and other things used for the purpose) the word ‘enterprise’ is often replaced by the word ‘farm.’

“The means of production referred to are labour and capital. . . .

“The land production system is the result of a series of economic selections made by the entrepreneur—in view of the land he cultivates and the market prices obtaining—of the various *technical possibilities* before him. These selections regard (a) the organization (b) the management of the enterprise.

“The organization of the enterprise is determined by the following considerations:

“1. The crop system, dependent on the species, variety, and breed of the plants cultivated; the ratio of productive area assigned to each of them (relative area); the crop rotation adopted, and the arrangement (regular rotation or not) of the pluriannual crops;

“2. Modes of converting the direct products of the soil which are not consumed as such (industries converting, for instance, forage crops into animal products, grapes into wine, etc.);

with due regard to the physical conditions of each zone and to national interests.

From the economic standpoint, integral land-reclamation consists in co-ordinating all existing resources—labour, land, water, and other capital—in the most profitable manner.

Economically, the integral character of a land-reclamation enterprise is linked up with that of its agrarian system, which, by securing the purposes of reclamation, ensures the effective use not only of all available resources but also of all the works carried out. Thus the increased income obtained from the land will provide for the amortization of at least a good percentage of the costs incurred. It thus becomes possible to carry out a great reclamation programme.

These self-evident considerations may seem superfluous, but they reflect the leading features of integral land-reclamation, which are laboriously secured and demand continuous attention, assiduous care, mature studies, rapid adjustments, and cautious judgment if they are to be preserved. Before the integral character of the work was secured, there was danger that, in draining land, water might be wasted which could have been used to great advantage; that in regulating water-courses the conditions prevailing in the mountain basin where the disorder arose might be disregarded, that forestry regulations might be enforced regardless of the economic conditions of the mountain populations, that the Government while carry-

“3. Relations between the parties co-operating in the enterprise, and specifically between (a) the entrepreneur and the land-owner; (b) the entrepreneur and the manual workers;

“4. Scale of the enterprise.

“The modes of management of the enterprise are determined by the following considerations:

“1. Modes of fertilizing: we call modes of fertilizing all those which, given the nature of the land and the organization of the enterprise, tend to increase the per unit yield of the crops or to improve their quality: fertilizers, tillage, irrigation, protection against injury;

“2. Modes of performing those field operations which, in view of the nature of the land, the organization of the enterprise, and the modes of fertilizing, have to be carried out gradually; hence selection of motor-power and machines, including livestock, for cultivating or processing.”

ing out costly reclamation works, building roads, etc., might tolerate primitive farming methods, thus leaving hygienic conditions unchanged and making the upkeep of the work so costly as to foredoom it to ruin.

Land-reclamation becomes economically "integral" for the country as a whole, when it ensures the most advantageous agricultural use of labour, land, water and national savings. And here the difference between corporative and other forms of economy becomes apparent, for so vast a programme, involving so many technical complexities, in which the immediate profits are limited, which absorbs large bodies of labour and capital, and which has to overcome colossal natural adversities demanding the closest and most devoted attention, can only be carried out when the old antithesis, dear to liberal economics, between the State and the individual is eliminated, and when private enterprise, which the bolshevick system would crush, is availed of to the fullest extent in the interests of the community. It is a question of taking advantage of all the contributions made by the various parties participating in the work, from the efforts of the intellectual worker searching scientific solutions and the best means of giving them effect, to the tenacious efforts of the labourer, from the enterprising activities of the capitalist to the parsimonious constancy of the farmer.

Private enterprise and private ownership encourage savings, put them to the best use, and induce the farmer to cultivate his land with enthusiasm and devotion. But these are social functions, and as such they come within the purview of the corporative system, which takes into due consideration rights and duties, co-ordinating them with the action of the State.

Such large-scale co-ordination is not only incompatible with conditions under which lands are parched while water is wasted, valuable man-power kept idle while on large areas of land only poor grazing and occasional scanty cereal crops are obtained, but it also requires that the resources of modern technical and social progress be made available to all the rural sectors of the country.

Integral land-reclamation is achieved by works for which the Government is responsible, by private works compulsory in character, and by other optional ones for which the Government makes grants. In the first case, the work is undertaken by the Government with the assistance of the owners; in the second it is undertaken by the owners with the assistance of the Government. The plans are studied and selected so that the quota of costs charged to each owner may be expected to earn a normal rate of interest, provided by the increased income obtained from the land itself; and, in the case of the Government, so that the quota for which it is liable be proportionate to the economic and social advantages secured for the country. It is however clear that private and public interests are interlocked.

The quota of costs for which the owners are liable is payable in annuities, collected by the same methods and enjoying the same privileges as the land-tax. The corporative character of the system of concessions, under which the execution of government works is generally entrusted to a consortium of landowners, is also noteworthy. These consortia are not co-operative associations formed exclusively for the protection of private interests, but associations of a public character, vested with social functions, to which the Government delegates certain of its powers.

We shall see later on how the integral character of land-reclamation is safeguarded against failure on the part of the landowner to fulfil the duties incumbent on him. In such cases the law threatens him with expropriation; but it is obvious that the exigencies of reclamation make it advisable to have recourse to this penalty only in the last resort. Indeed, care is taken that the work be so efficiently and equitably organized as to ensure the zealous co-operation of all concerned in its execution. Should the owner not dispose of the capital required for introducing new productive systems, and should the ratio between the sum needed and the value of the land be such as to make borrowing undesirable, even

on the favourable terms provided by law—and such cases occur, especially when vast estates, extensively cultivated, are to be brought under intensive agriculture, which as the result of heavy capital investments greatly increases their value per unit—then it is desirable to secure the owner's consent to the sale of all or part of the estate, for it is evident that when land is farmed intensively the average area under single ownership declines.

* * * * *

3. INTEGRAL LAND-RECLAMATION AND CORPORATIVE ECONOMY

What we have so far said not only shows the corporative character of integral land-reclamation but also that the work is made possible and its efficiency secured by the corporative system.

Professor A. Serpieri in the introductory address ¹ to the course of studies for specialists in integral land-reclamation held in 1931, at the R. Superior Institute of Agriculture at Pisa studies the economic aspects of the work which afford a remarkable illustration of the essential significance of the Corporative State. Outstripping both liberal and socialist conceptions, the Fascist conception of the State succeeds in amalgamating public and private activities. The Corporative State, inclusive as it is of all citizens, seeks

the best way—i.e. that most closely corresponding to national aims—which are identical with those pursued by the citizens themselves—of distributing economic functions among the several organs of national life, represented by public bodies organized on bureaucratic lines, semi-official bodies, syndical institutes, etc., down to the individual citizen, himself an organ of the State, to which he is responsible for his economic activities.

In the report of the Under-Secretary of State to the Second Meeting on Syndical and Corporative Studies

¹ This address is reprinted in A. Serpieri, *La legge sulla bonifica integrale nel secondo anno di applicazione*, Ministry of Agriculture and Forestry, Rome, 1932.

held in May 1932, entitled "Corporative Economy and Agriculture"¹ the quota of national savings required to ensure the provision and equipment of new lands, and their division into farm units equipped with the means for ensuring higher yields is studied in relation to the use made of the national income for purposes of investment and consumption, the national importance of the formation of capital, and the need of using it to increase the means available for satisfying the basic needs of a growing population, so as to protect it not only against any lowering of national standards of life, but so as to raise those standards progressively.

We refer the reader to these two papers as they would lose by any attempt to summarize them.

* * * * *

4. THE THEORETIC STAND

The theory underlying integral land-reclamation has been set forth by Professor A. Serpieri in his book *La Politica agraria in Italia e i recenti provvedimenti legislativi*. (Piacenza, Federazione Italiana dei Consorzi Agrari, 1925).

Italy covers an area of 310,120 sq. kilometres, of which one-fifth (63,323 sq. km.) consists of plains, more than half of the remaining four-fifths being accounted for by hilly lands (124,133 sq. km.), and the remainder (122,664 sq. km.) by mountain ranges, often of notable elevation.

With its 42,740,000 inhabitants² on 30th April 1935, the density of the population then stood at 137.8 per sq. km.,³ a figure only exceeded in European

¹ This report is reprinted in A. Serpieri, *La legge sulla bonifica integrale nel terzo anno di applicazione*, Rome, 1933.

² Istituto Centrale di Statistica del Regno d'Italia, *Bollettino Mensile di Statistica*. Rome, May 1935, p. 357.

³ Detailed figures for mountain, hill, and plain areas are lacking. The 1921 census, which gave 125 inhabitants per sq. km. for the country as a whole, returned 73 for mountain, 134 for hill, and 207 for plain areas. (*Istituto Centrale di Statistica del Regno d'Italia*, *Annuario Statistico Italiano*, 1929, Rome.)

countries with over 20 million inhabitants by Great Britain with 195.8 and Germany with 140.6, whereas in France the density is 76, in Spain 47.6 and in Poland 85 per sq. km. For purposes of comparison we may state that in the United States of America the density stands at 16, in Canada at 1.1, in Argentina at 4.3, in Brazil at 5.2. For the several Continents we have 71.1 for Europe, 7.6 for North and Central America, 4.9 for South America, 39.9 for Asia, 4.8 for Africa, 1.2 for Oceania, and 7.9 for the U.S.S.R.¹

The agricultural production required to meet the needs of so dense a population is not facilitated in Italy by favourable climatic conditions, for, except for abundant sunshine—which when excessive can even be harmful—the climate adds to the difficulties of the situation. The following description of Italian climatic conditions is taken from the volume by Professor Vittorio Peglion, *Le Bonifiche in Italia, Problemi e finalità agricole*, pp. 24 and 25 (Bologna, Nicola Zanichelli, 1924):

... the data collected by Roster, and brought up to date by Eredia, provide detailed information on the rainfall of the various climatic zones.

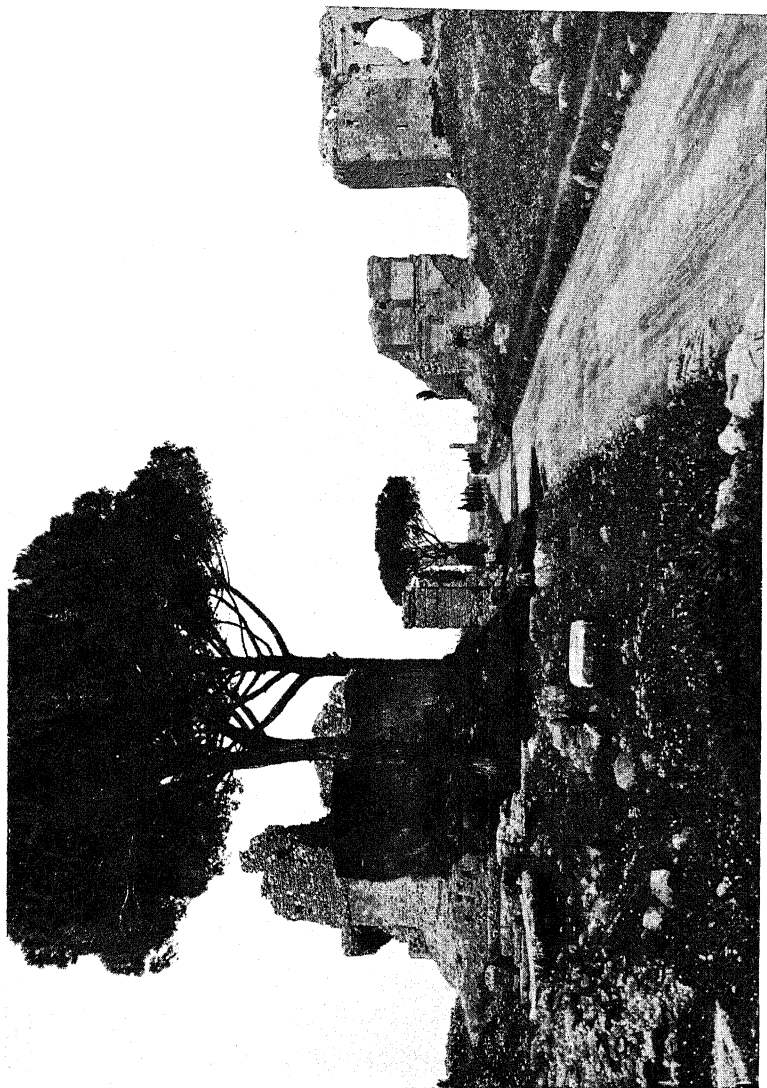
In the Valley of the Po and neighbouring districts, spring and autumn rains prevail, the maxima precipitations coinciding with the spring: the annual precipitation amounts to 1,031 mm. of which 570 fall in the spring-summer semester.

The Adriatic and Tyrehnian maritime zones enjoy respectively an annual precipitation of 693 mm. and 913 mm., the rains being most frequent in the autumn and winter months; in the spring-summer semester the rainfall is of 380 mm. and 320 mm.

Sardinia, with a similar régime, has an annual precipitation of 526 mm. of which 202 mm. in the spring-summer semester; Sicily with an annual precipitation of 617 mm. has 160 mm. only in that semester.

Apart from the Valley of the Po, or rather a section of it—it is evident that the rest of Italy must be classed with the semi-arid countries of the globe, and while the irregular distribution of the

¹ International Institute of Agriculture, *International Yearbook of Agricultural Statistics*. 1933-4, Rome. The above data refers in almost all cases to 1933.



THE APPIAN WAY.
Courtesy of Istituto Nazionale Luce.

rainfall leads to winter and spring swamping of the low lands, the season of the year in which vegetation is most active is that of scanty rains, and drought frequently neutralizes the advantages afforded by other environmental factors regulating production.

These adverse contingencies are found even in the Valley of the Po, so that, if the purpose of land-reclamation is to ensure the safety and normal continuity of production, we must seek those carried out in the fertile irrigated plain of North Italy, which stretches from the Dora Baltea to the Adige.

A third characteristic feature of the situation is afforded by the fact that Italy, taken as a whole, has for years past attained a high degree of agricultural production. This is after all only natural in the case of a country of very ancient civilization, whose inhabitants have for centuries past devoted themselves to cultivating the soil, "adapting to its needs ingenious and extremely varied forms" of cultivation whenever the work has not been "hindered by natural obstacles of too grave a nature." Estimates indeed show that for each hectare of the national territory (inclusive therefore of woods, grass-lands, bare rocks, roads, cities, etc.) the output of the soil averages the value of over 1 metric ton of wheat, a high average considering the physical conditions of the country. The situation is made still clearer if we consider the extremes between which production is carried on, as shown by the following figures calculated by Eng. G. Zattini,¹ which are however affected by the intrinsic difficulty of defining the notion of "gross production."

The value, expressed in gold lire, and at pre-war prices, of "gross production" per hectare (followed, for purposes of comparison, by figures between parentheses indicating the metric tons of wheat theoretically corresponding to each of the gold lire values quoted) in the five provinces with the highest averages stands at 1,278 (4.48) for Naples, 787 (2.76) for Cremona, 765 (2.68)

¹ Eng. Giuseppe Zattini, *Valutazione della Produzione lorda della Agricoltura Italiana. Ministero per l'Economia Nazionale, Ufficio di Statistica Agraria, Rome, 1925.*

for Milan, 679 (2.38) for Alexandria, and 645 (2.26) for Pavia. The five provinces with the lowest averages give the following results: Sassari 91 (0.32), Cagliari 92 (0.32), Potenza 110 (0.39), Cosenza 118 (0.41), Belluno 137 (0.48). Commenting on the results of this study, and comparing them with the census returns of the population in 1921, Zattini says that "the population is in function of the fertility of the soil" (Province of Naples 1,818 inhabitants per sq. km., Cagliari 41, Sassari 32). On the other hand Cattaneo wrote that the intensification of agriculture is due to the rise of cities.

The above situation viewed as a whole shows that if the Italian people has a notable rate of increase, and desires to preserve it as evidence of vital power, and if it desires to maintain and stress the rural character of the nation and attain higher standards of life in the more backward rural sectors, it must increase agricultural production, so as to give employment to a larger rural population, and intensify it so as to obtain a higher yield per acre. These purposes can only be secured by increasing the capital permanently invested in land and agricultural improvements. If the amount of available capital is limited, it is all the more essential to make good use of it, by utilizing all the resources of technical knowledge for securing the desired results, and to encourage the formation of new capital available for investment in the land. We thus return to the notion that to secure the reconditioning of the national territory on lines which will provide the basis for higher standards of living, the rural population, which is also the most thrifty, must be enabled to yield its best results.

The fact that the rural populations have for centuries been the victims of malaria, that the finest specimens of the race have lived in the isolation of mountain zones and that their problems have been ignored, that vast areas have remained under extensive agriculture—natural grass-lands with here and there primitive cereal crops—although masses of peasantry were available who could

have enriched them by their labour, points to the enormous technical, financial, economic, social, human, and hence above all, political complexity of the problem.

Prior to the advent of Fascism the rural classes, though forming the majority of the Italian population, had no political weight. Power was in the hands of the industrial urban classes.

In the world of business, capitalism, industrialism, men with an instinctive gift for what Pareto calls "arrangements" predominate: clever, able, speculators, attracted by novelties, etc., who find there the environment in which they can most readily secure the upper hand, and who, when they have it, direct the whole community towards business activities. Where they are in the ascendant we find self-interest as the ruling motive, prevailing over all other sentiments. Industry and commerce afford such people the best field for action, especially when those activities develop on plutocratic lines under which the manufacturer and trader no longer devote themselves to their legitimate business, but engage in financial operations connected therewith.

Agriculture offers no such opportunities. As we all know it is not an occupation allowing of rapid and easy profits, rapid innovations and combinations. Therefore, the men who form the majority in the country districts are less clever, less able, less astute, but more upright and of stronger character; men in whom we find, to use Pareto's expression, a tendency towards the "persistency of aggregates." They feel strongly the ties binding them to their possessions and their fellow-men, attachment to the family, to property, to their own land, their native soil, their own language, their own religion; feelings arising in the human soul from the same roots as the respect of authority, of tradition, of uniformity, the aversion to novelties, etc. In their case these feelings often have equal or greater force than self-interest.¹

Past experience shows that principles and policies originating in cities and in the business world are subsequently applied to the rural world, which is thus stretched on a Procrustes' bed. Yet a healthy, vigorous rural community is essential to the prosperity of the towns and of business itself. In this connection it can truly be said that justice is the best policy.

¹ A. Serpieri, *La politica agraria in Italia*, pp. 57 and 58.

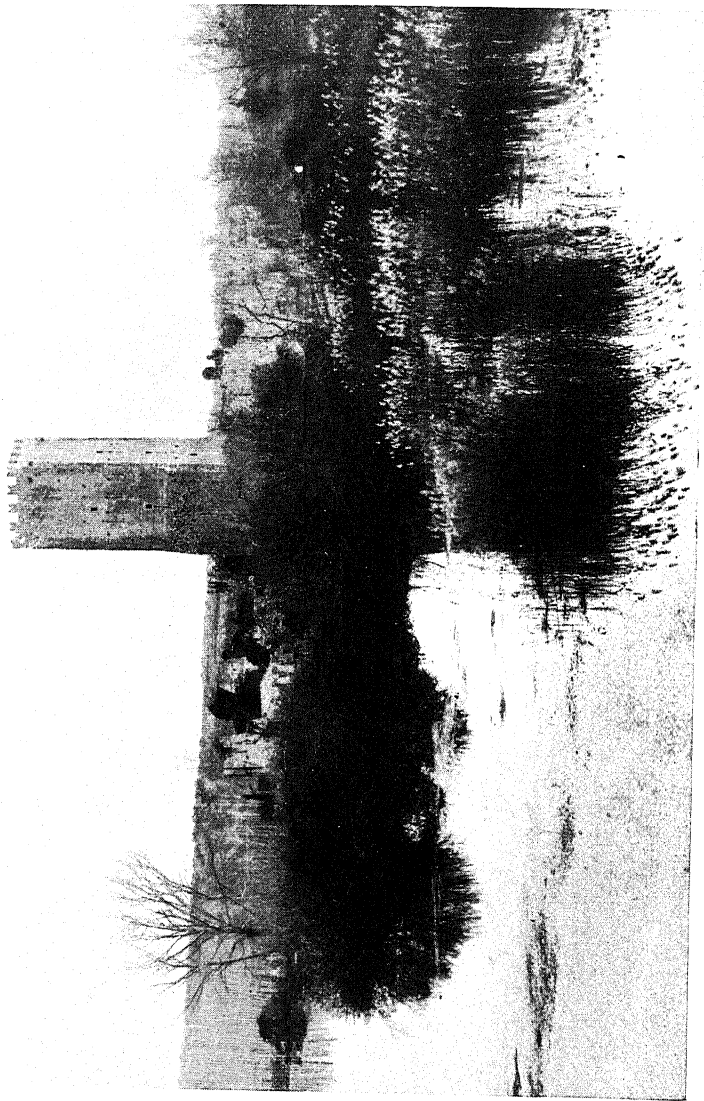
Fascism considers that the preservation of a high degree of rurality is a matter of fundamental importance—at once moral, political, and economic—for it ensures the growth of the population, the primary condition of power, it ensures the physical and moral sanity of the race, it encourages the virtues of industry and thrift essential to all progress in production, it directs production towards the supply of staple foods, and therefore ensures a greater degree of independence to the Nation.¹

The rural classes are the great reserve force of the nation, whence it derives new energies; in countrymen as in seafaring folk, contact with the colossal forces of nature tempers and tests their energies. They stand for positive, age-old realities, forming a foundation on which the daring and mutable structures of industry and commerce can be built. With each variation in the price-level they reform the ranks of their armies; when prices are rising new recruits come up from the country, when the cycle changes, the land offers the best means of absorbing labour, the one most effective in warding off the sufferings of destitution.

Social justice is the result of co-ordination. The collaboration of the several classes, each taking advantage of the progress achieved by the others, ensures national progress. To strengthen the rural classes we must know them, understand them, study their problems. When the desire to strengthen them becomes the policy of a nation desirous of preserving its strength, the technical and economic sides of the problem merge in the ethical one. Such is the character of the agrarian policy of Fascism, which has met the several technical requirements of the situation by two of its most characteristic manifestations, the "wheat campaign" and "integral land-reclamation."

After the March on Rome, in 1923-4, a period of transition and preparation dominated by the need of liquidating the heavy legacy of the past and by the desire to harmonize, as the Duce said,

¹ A. Serpieri, "*La bonifica integrale nella storia e nella realtà odierna.*" Speech reprinted in A. Serpieri, *La legge sulla bonifica integrale nel terzo anno di applicazione*, Rome, 1933.



NINFÀ, THE CITY OF LEGENDS OF THE PONTINE AGER.
Courtesy of Consorzio di Bonifica di Littoria.

"all that the inexhaustible womb of the future is bringing us of sacred and of strong," the new trend above referred to found expression in two laws: one the codified text on land drainage introduced by the Ministry of Public Works on 30th December 1923, the other (for unfortunately the matter then came within the purview of the two Ministries)—introduced by the Ministry of National Economy—for land-improvements of public interest which became the Act of 18th May 1924. . . .

. . . 1925, the year which marks the beginning of the new Fascist organization of the State, also marked a decisive turn in the rural policy of the régime, since then vigorously directed by the Duce himself. The wheat campaign and integral land-reclamation are its two fundamental aspects: the former mobilizing all economic and spiritual forces for the intensification of agriculture by the usual technical means (fertilizing, tillage, seed selection, etc.), the latter for the adaptation of new lands by the investment therein of new capital, so as to allow of bringing them under intensive cultivation.¹

. . . But the will of the Duce had not yet transmuted technical programmes and legal formulæ into political action, replacing ordinary administrative methods by an intense rhythm of work engaging all the energies of the Nation. Year VI marks that hour. . . . In December the Parliament solemnly enacted the bill which became the Mussolini Act of 24th December 1928, VI, No. 3134. Besides supplementing in some particulars previous legislation, more especially that on rural aqueducts and roads—that Act provides the financial resources required for imparting to land-reclamation work an impressive and annually increasing rhythm.²

The whole series of measures is dominated by moral values. Let me give an illustration.

In 1925, Dr. Albert Mann, Dean of Cornell University, New York State Colleges of Agriculture, came to Europe to organize on behalf of the Rockefeller Foundation cultural exchanges between the several countries in the field of agrarian science, and for a short time he had an office at the seat of the International Institute of Agriculture in Rome. On that occasion

¹ A. Serpieri, *La Bonifica integrale nella storia e nella realtà odierna*.

² A. Serpieri, *La legge sulla bonifica integrale nel primo anno di applicazione*, Ministry of Agriculture and Forests, Rome, 1931, pp. 12 and 13.

Gian Francesco Guerrazzi, a noble figure of patriot, writer, and agriculturist, helped Dr. Mann to acquire a knowledge of Italian agriculture in the several regions.

Among the many efforts towards agrarian reform, the reorganization of experiment stations, etc., which were then under consideration, Guerrazzi called Dr. Mann's attention to those "Schools for the peasants of the Roman Ager and the Pontine Marshes" started by the late Dr. Angelo Celli the eminent malariologist, together with the poet Cena, and Professor Marcucci, who, sole survivor of that group, has seen the work of those schools appreciated and recognized by the Fascist Government, a work based on private initiative, skilful adaptation to special conditions, and an immense love of the peasants dispersed over the arid fields of the Campagna and the malarious marshlands. All this made a deep impression on Dr. Mann, but the fundamental point he wished to ascertain was whether the educational work of the schools was linked up to further opportunities for study which would enable the children of the peasants to rise in the social scale, for though the laws and customs of Italy have never excluded any class from mounting all the steps of the social ladder, it seemed to him that people living in isolation as these then did, amidst the squalor of semi-desertic conditions, neglected, devitalized by malaria, cut off from all contact with more civilized conditions, found themselves practically enclosed in a circuit from which there was no escape.

It is this circuit which integral land-reclamation is breaking down by a well-considered, organic effort, assisted by all the factors needed to ensure success. The national community now desires to be reunited to those populations, segregated for centuries from social intercourse; it wishes to reinstate them, with honour, in the ancestral home. With this reunion as its starting-point, land-reclamation work gradually extends its scope so as to remove all the many drawbacks from which the rural population of the several sectors suffers; it brings to them the primal needs of modern life—ethical

values, education, sanitation, means of communication, machinery, electricity, farm industries, etc.; it introduces on the farm new productive systems and inserts the rural classes firmly within the framework of national life.

* * * * *

5. ROMAN EXPERIENCE¹

Perhaps the most significant expression of the policy of Augustus is afforded by the fact that in the year 29 B.C. on his return to Italy after taking Alexandria, while travelling towards Rome, where a triumph awaited him with the *Imperium* and honours never before granted to any other man, he stopped for four days at Atella where he read the *Georgics* brought to him by Virgil. Augustus had given proof of his ability by the choice of Agrippa as his general and of Maecenas as his minister. With his keen knowledge of men, Maecenas had persuaded Virgil to write the *Georgics*, which, set forth in full detail the farming methods of the day—whose perfection and freshness still surprise us—and tell of the nobility and essential sanity of agriculture, with its joys and trials, as experienced by the rural populations.

Rome was about to give the world the longest period of peace ever enjoyed, and Augustus was devoting close attention to preserving the rural character of the Italian peoples, increasingly attracted towards commerce, business, and the pleasures of city life. After the victory secured in the agrarian war of 41 B.C., in which Augustus supported the claims of the veterans to the lands they

¹ See Celso Ulpiani, *Le Georgiche*, Fratelli Marescalchi, Casalmoferrato 1927.

Chapter I. Virgil and Augustus.

Chapter II. The Technical Content of the *Georgics*.

Chapter III. The Spiritual Content of the *Georgics*.

Chapter IV. The History of Smallholdings from Romulus to Augustus.

Chapter V. The History of Smallholdings from Augustus to our Times.

Chapter VI. Large-scale Agriculture.

Chapter VII. The Georgic Ideal of Virgil.

See also: Giulio del Pelo Pardi, *Agricoltura e civiltà*. Preface by Roberto Paribeni, Casa Editrice Roma. Libreria Mantegazza, Rome.

Giulio del Pelo Pardi, *Virgilio*, Libreria internazionale Fratelli Treves dell'ALI. Rome, 1929.

had been promised (Caesar had promised each of his men 200 *jugera* of good Italian land) the grants had been made, and the consequent expropriations cost one countryman, Virgil, the loss of his farm near Mantua, for which he received in compensation from Maecenas that Villa at Pozzuoli where he wrote the *Georgics*.

More than this was, however, necessary to place the State on firm foundations, and Augustus, making a noble use of the spiritual contribution made by Virgil's poetry, undertook a vast programme of land-settlement throughout the country. In Italy 32 settlements were made, among which Turin, Cremona, Parma, Rimini, Fano, Pisa, Siena, Capua, Nola, Benevento, Avellino, etc., besides a great number in the provinces. In his political testament Augustus notes that he drafted to these settlements over 300,000 families. It was then that the institution of "military" colonies was started, each consisting of a whole legion, encamped in full military formation; but as a general rule the settlements were of that agrarian type which tradition ascribed to Romulus when founding Rome, consisting of farmers, each of whom received in freehold 2 *jugera* of land, along with the use of other common lands on which to raise arable crops, gather wood, cut grass, and graze cattle. The subsistence of the families was thus ensured, and these social cells, vivified by the labour each bestowed on his own lands, re-established that social balance on which the greatness of Rome had been built.¹

¹ "The source of Roman prosperity, the cause which moulded the character of that people and enabled it to rise towards high forms of morality and civilization, is undoubtedly to be found in the loving and wise practice of agriculture." Roberto Paribeni, preface to the volume by Giulio del Pelo Pardi, *Agricoltura e Civiltà*, in which the idea above stated is fully treated, along with others referred to in the following sentences, p. 15: "... almost always these historians make civilization precedent to agriculture, as though any sort of civilization could arise which could be independent thereof, thus making agriculture the daughter of civilization. I believe that the formula 'civilization and agriculture' should be replaced by 'agriculture and civilization' and I also believe that, once in a way, the paradox that a change in the order of the factors can change their product, is here exemplified."

Again, on p. 7, we read:

"It is therefore necessary to elucidate the value which should be given to

Indeed, we can safely say that the Romans, honouring the work of the farmer, and fitting themselves to exchange the plough for the sword and to discharge the highest duties in the State, set up as their ideal man one in whom the nervous and the muscular systems are perfectly balanced. Thanks to this co-ordination of all physiological activities, the Romans were able to give the world three great examples of discipline, equity and organization: the Roman legion, Roman law, and the Roman *res rustica*.

At the present time, notwithstanding the relief sought in sport, highly refined and congested industrial populations are feeling the effects of the nervous tension to which they are subjected which interferes with the fulfilment of such elementary physiological functions as sleep, and the measures taken by old Rome to safeguard the balance between the nervous and muscular systems acquire deep and renewed significance.

The Georgics clearly point to agricultural work as the source of the traditional Roman virtues, as is shown by the digression on the pagan myth of the Age of Gold. That age coincided with the reign of Saturn (a period immediately following on the ice-age) when vegetation and animal life flourished spontaneously on the new lands emerging as the ice-cap withdrew.

Saturn arranged everything for the felicity of man, who gathered the fruits of the earth without labouring to produce them; but this all too easy life led to the degeneration of the species, and Jove, succeeding Saturn, created difficulties for men to overcome. Jove shook the honey from the leaves, dried up the rivers running

the word 'agriculture.' It should not be understood as merely denoting the possibility of obtaining products from the soil. That has always been and always will be in all ages and all countries, for all and always have eaten and will eat. But we must give agriculture its full, profound, human significance; we must consider it as the most complete and complex manifestation of human activity and of humanism; the art through which the intimate spirit of a people expresses itself, which evolves and assumes aspects and importance of vastly varying kind according to the quality of the people exercising it. And it is in the exercise of this activity that a nation perfects its qualities."

wine, hid the fire, scattered the seeds of the plants by which men live, invented noxious weeds and the blight which withers the wheat.

Then the arts arose. Tenacious labour, and necessity which goads us on under difficulties, overcame all obstacles. Ceres first taught men to plough with the iron share. . . . Jove himself desired that the task of the farmer should be no easy one, it was his wish that the fields be cultivated with art, for troubles sharpen the wits of men, and prevent them from growing sluggish in drowsy ease.

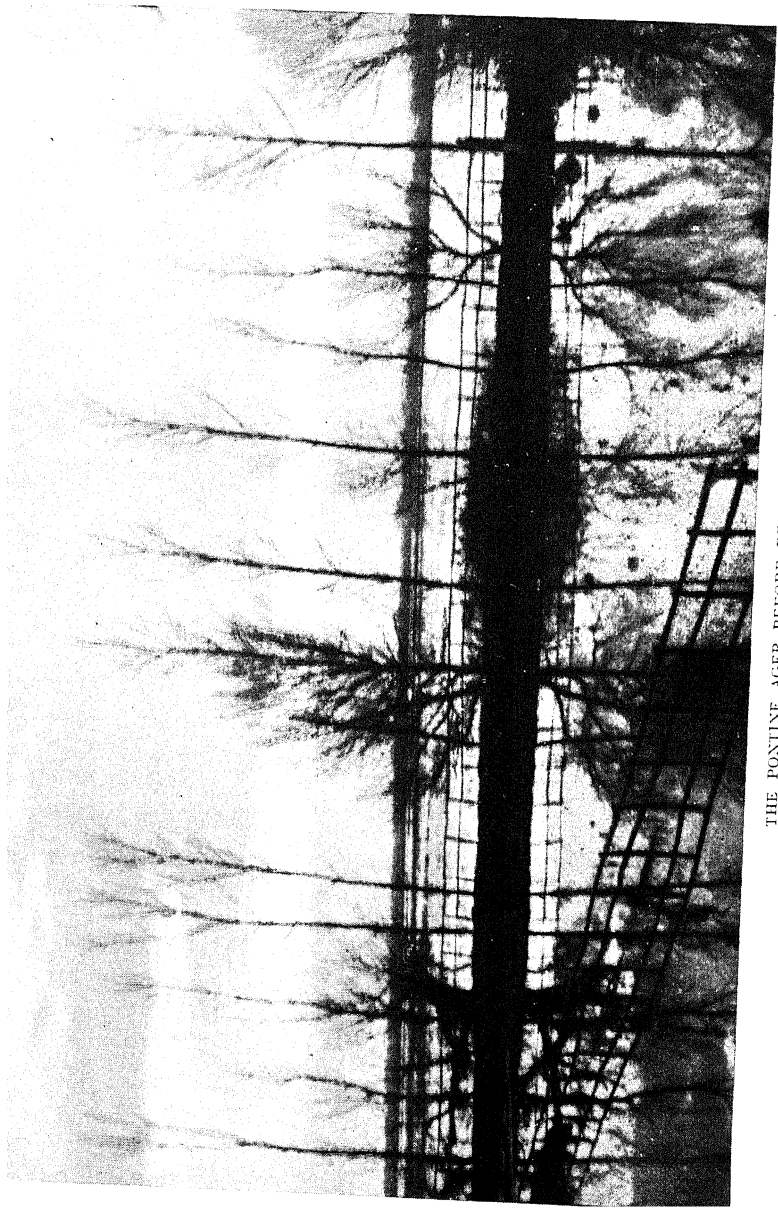
This fundamental biological law reappears, immutable, in every other system of forces, and life degenerates when there are no obstacles to overcome. Virgil knew

how to extract from the very essence of his religion the imperative command of agricultural work; representing the reason for that command arising in the mind of Jove himself, and showing that it was at the basis of the old customs of Rome and the source of Roman greatness.

* * * * *

6. A WORK OF EQUILIBRIUM

The selection of an agricultural policy really requires a philosophical analysis of the inner forces of social life and the fundamental laws governing the universe. Religion and science agree in teaching that safety, progress, life, strength, are secured at the cost of sacrifice and by overcoming difficulties. The value of agriculture lies in the fact that in its case man experiences those difficulties in a struggle with the forces of nature, which he seeks to control so as to secure the means of subsistence for the society to which he belongs. This constant pressure, the resistance he offers to heat, cold, sun, and storms, and the joy of production, temper in the farmer mind and body. But it would be folly to expect him to prosper so long as difficulties of all kinds beset him in all directions. The conception at the basis of the present land-reclamation programme aims at securing a condition of equilibrium.



THE PONTINE AGER BEFORE RECLAMATION.
* Courtesy of *Consorzio di Bonifica di Littoria*.

It would be difficult to exaggerate the gravity of such a scourge as malaria. Several theories have been advanced to account for its origin in Italy. The classical theory considers that the whole Mediterranean Basin afforded a suitable environment for malaria ever since prehistoric times; the historical-biological theory considers that malaria was imported into Europe from Africa, spreading over the warmer plains and marshlands, chiefly as a result of the immigration into south of Italy of the mercenaries hired by Marius and Sylla, and of Hannibal's army, which during the second Punic War, overran almost the whole of the Peninsula.¹

But whatever its origin may have been, and apart from the antiquity of the disease and the economic injury it has wrought, the way in which it undermines the health of the populations affected suffices to prove the serious nature of this scourge.

Referring to statistics of malaria in Italy—deaths from malaria and paludism from 1887 to 1920 and reports on cases of malaria—the late Professor Giovanni Battista Grassi explained the reasons why the data were unreliable.² He expressed the opinion that the number of persons suffering from malaria in Italy exceeded two million. From recent statistics, of much greater value than the old ones, it appears that in the last five years, 1928–32, deaths from malarial fever and paludism have averaged some 3,000 per annum.³

Before the idea of conferring an integral character on land-reclamation works came to the fore, drainage and sanitation were resorted to for checking malaria, but in the absence of a general plan for the reconstruction of the environment on lines eliminating all the conditions

¹ Ministry of the Interior and Ministry of National Economy, *La risicoltura e la malaria nelle zone risicole d'Italia*, Provveditorato Generale dello Stato, Rome, 1925.

² General Direction of Agriculture, Professor Senator Giovanni Battista Grassi, *Lezioni sulla malaria*, Provveditorato Generale dello Stato, Rome, 1927.

³ Istituto Centrale di Statistica del Regno d'Italia, *Annuario Statistico Italiano*, Anno 1933, and Anno 1934.

producing it, the disease persisted. Integral land-reclamation, by co-ordinating all the measures needed for renewing the conditions of rural life in a given territory, eliminates malaria along with other conditions standing in the way of intensive agriculture.

In many zones a fierce battle has to be waged against this disease, and, as we shall see, further on, the National Foundation for Ex-Service Men (*Opera Nazionale dei Combattenti*) is here again in the vanguard.

For many years past the need of protecting woods in mountain districts from injury by the population and their live-stock has been recognized. Repressive measures were taken, which injured the inhabitants without saving the woods. Instead of this, integral land-reclamation starts by recognizing that in such a country as Italy the mountain populations provide the most valiant strain in the race, that the economic life of a mountain area is a delicate complex, varying fundamentally from that of hill or lowland districts; that the preservation of the woods themselves is tied up with the regulation of mountain grazing-lands, arable lands, roads and water-courses; and that the conditions prevailing in the mountain areas determine those in the plains which stretch at their foot. The light thus thrown on a sector heretofore so little known because so silent and so different from the thickly populated areas, is due to the work of a few pioneers. Further on we shall deal with the activities of the Mountain Secretariat.

The pressure of population in some zones is now being corrected by the settlement of the newly reclaimed lands. The activities of the National Secretariat for Internal Migrations are described on page III.

Integral land-reclamation is of special value in righting the balance of employment on the labour market, a matter which the prevailing world economic depression has made of pressing concern. The average number of workers engaged *per diem* on government reclamation works, are shown in the following table:

LABOUR ENGAGED ON GOVERNMENT RECLAMATION WORKS.

Financial Year.		No. of Working Days.	No. of Workers engaged each Day.
1922-3,	I	7,029,250	28,117
1923-4,	II	4,900,000	19,600
1924-5,	III	5,063,000	20,252
1925-6,	IV	3,466,000	13,864
1926-7,	V	3,336,250	14,145
1927-8,	VI	5,347,250	21,389
1928-9,	VII	7,029,250	28,213
1929-30,	VIII	8,740,250	34,961
1930-1,	IX	11,274,500	45,098
1931-2,	X	13,153,500	52,614
1932-3,	XI	14,889,750	59,559
1933-4,	XII	17,896,500	71,586
Total		<u>102,354,000</u>	<u>—</u>

The effort to accomplish the maximum amount of work with the means available, and the system of granting concessions for its execution to consortia of the landowners, duly co-ordinated and assisted by the National Association of Land-Reclamation and Irrigation Consortia (see p. 101) make it possible to provide work for the unemployed without incurring the risk of encouraging anti-social eleemosynary measures and without deserving censure for anti-economic measures as formulated by that supervisor who defined unemployment relief works as those on which one worker performing a given task is replaced by two who do less than half his work.

But while integral land-reclamation affords a timely remedy for unemployment by meeting the needs of large bodies of labour without reducing their efficiency, and succeeds in capitalizing for the nation the value of labour-forces which would otherwise have been wasted, it should not be supposed that it is a mere expedient available for periods of economic depression. On the contrary, the work prospers better and is more easily executed when prosperous economic conditions lead to the accumulation of fresh reserves of rural capital, and when remunerative

prices increase the income obtained from the investment and facilitate amortization.

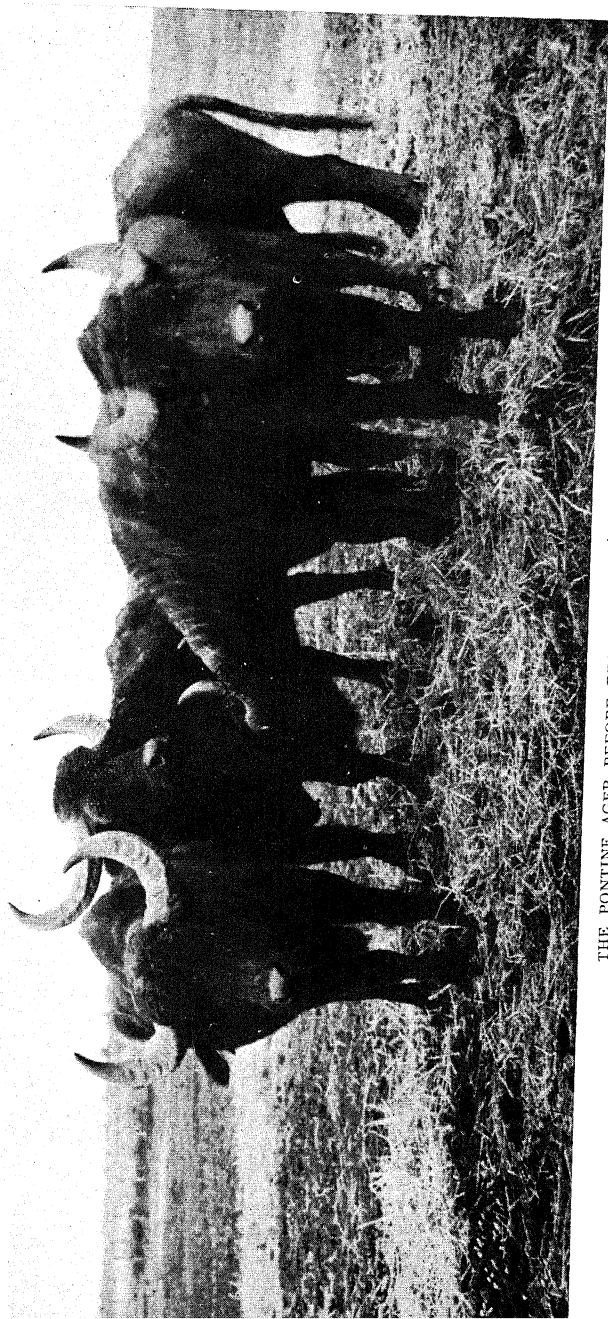
Other characteristic features of integral land-reclamation might be mentioned, such as the settlement of the problems arising from the claims of the rural population to the use of certain common lands (*diritti civici*), technical and scientific research work, the settlement of sundry economic problems, etc., all indicating its value as a means of securing social balance. The reader will find ample particulars on all these points in subsequent chapters. We only wish here to remind him that while the difficulties inherent to agriculture must be recognized in drawing up a rural programme for the nation, yet in establishing the new equilibrium one cannot be too circumspect in maintaining the task assigned to the rural population within just and attainable limits.

* * * * *

7. FIRST RESULTS

What the developments of integral land-reclamation may be in the course of years can only be stated as a personal expression of ideals, for as the work spreads, achieving to the full its objective of securing a better general use of the land, far from exhausting its possibilities it develops its work of improvement, identifying itself with the agriculture of the country. In studying the movement it is therefore essential to deal strictly with the programme already laid down, devoting attention to the work performed, the settlements secured, the studies and projects undertaken, the financial resources available.

The following "Summary" on page 33 of the "State of Public Works in Land-Reclamation Areas on 1st July 1934," sets forth figures which give an idea of the initial results secured; and of the extent of the area on which the works are carried out. This area totals 4,733,982 hectares, and accounts for nearly one-sixth of the total area of the Kingdom.



THE PONTINE AGER BEFORE RECLAMATION (BUFFALOES).
Courtesy of Consorzio di Bonifica di Littoria.

In interpreting these figures it is essential to understand the distinction drawn between *protective reclamation works* and *land conversion reclamation works*.

The former are carried out on lands already farmed more or less intensively, but exposed to injury, generally caused by imperfect drainage systems, systems which, moreover, are constantly deteriorating, both in the lowlands on which the regular outflow of the waters is not assured so that they are liable to overflow, and in the hilly and mountainous lands, in danger of more or less rapid deterioration owing to soil erosion. On such lands reclamation works are carried out for the protection of a farming system already in existence, and they aim above all at preventing its deterioration by the substitution of extensive for intensive methods, sometimes leading to complete unproductivity.

Under these conditions it generally happens that when the Government works have been carried out the object in view has, at least for the most part, been attained.

In the case of land conversion reclamation, the works are carried out on lands heretofore under extensive methods of utilization (rough grass, woods, intermittent cereal crops alternating with grass lands, etc.), or else quite unproductive, such as permanent marshes, lands quite unpopulated or else with only a scanty stable rural population, and on which there is no organized rural life. Here the execution of Government works is only a preliminary step which lays the foundations for a thorough transformation of the use to which the land is put, with a view to introducing more intensive farming and a more or less dense, stable, population. Consequently, when the preliminary public works have been carried out, the yet more difficult task of land conversion and land settlement has to be undertaken.

The totals given in the "Summary" on page 33 can be grouped as follows :

A.—"Protective" public reclamation works
fully or almost completed . . . ha. 979,809

B.—Agricultural conversions well advanced or completed in "conversion" reclamation areas	ha. 782,639
C.— <i>Total of A and B</i> : areas on which the work is fully or nearly completed	" 1,762,448
D.—Public Works fully or nearly completed in "conversion" reclamation areas	" 330,238
E.— <i>Total of C and D</i> : areas on which the public works are fully or nearly completed	" 2,092,686
F.—Public works in course of execution but not yet advanced	" 2,641,296
G.— <i>Grand Total</i>	" 4,733,982

The following particulars were published by the Under-Secretary of State for integral land-reclamation.¹

On the occasion of the National Land-Reclamation Exhibition, the Under Secretariat arranged, through the district agrarian inspectors, for a partial enquiry to secure synthetic data on the more important advantages, from a national standpoint, of integral land-reclamation, which can already be noted in farms located in reclamation areas on which the work has already proceeded to a point ensuring radical changes as compared to the initial situation. The farms selected for this purpose, chosen as representing not exceptional but average conditions which can be secured by reclamation works for the other farms of the areas dealt with, were 42 in number, located in 34 areas in the several parts of Italy.

The data secured for the two periods, before and after reclamation, referred to the three following points: the gross value of the saleable products² estimated at the prices ruling in

¹ A. Serpieri, *La legge sulla bonifica integrale nel terzo anno di applicazione*, Ministry of Agriculture and Forests, Rome, 1933, pp. 64–6.

² "Gross saleable production represents the total of the products of the farm sold or consumed in kind by the entrepreneur or the workers on the farm and their families; it does not include the products of the farm used on it as means of production (for instance, the forage crops fed to stock; products re-employed as seed, etc.). Said gross saleable production is represented by three items; (a) global income or net product, i.e. the remuneration obtained from the farm by all the productive services of labour and capital taken as a whole; (b) expenditure for purchase of working capital (seed, fertilizer, etc.), and non-agricultural services (for instance, amortization annuities and up-keep of all the fixed land and working capital); this factor resolves itself finally into other incomes flowing from the farm to persons other than those who supply it directly with labour and capital; (c) taxes and similar charges."

SUMMARY

STATE OF PUBLIC WORKS IN LAND-RECLAMATION AREAS ON 1ST JULY, 1934.

Serial No.	Region.	I. "Protective" Reclamation.		II. "Transformation" Reclamation.			Total Area
		Public Works in Course of Execution but not yet Advanced.	Public Works Fully or Almost Completed.	Public Works in Course of Execution but not yet Advanced.	Public Works Fully or Nearly Completed.		
					Agricultural Conversion Well Advanced or Completed.	Agricultural Conversion to be ready Started or Nearly	
		Hectares.	Hectares.	Hectares.	Hectares.	Hectares.	
1	Piedmont	72,600	876	—	—	73,476	
2	Liguria	60,300	—	—	—	60,300	
3	Lombardy	123,902	45,083	2,640	34,084	206,529	
4	{Tridentine Venetia	11,334	—	4,500	—	15,834	
		64,145	207,542	40,110	124,799	453,404	
5	Julian Venetia	323,317	1,167	9,850	2,830	338,815	
6	Emilia	124,010	424,848	—	299,587	889,741	
7	Tuscany	53,310	45,793	308,769	39,262	457,660	
8	Marches	—	—	217,431	—	217,431	
9	Umbria	—	—	1,110	—	1,110	
10	Latium	33,400	1,411	71,229	89,539	219,338	
11	Abruzzi and Molise	24,821	2,065	6,238	16,664	51,188	
12	Campania	100	152,110	45,351	100,331	321,490	
13	Apulia	106,954	43,473	500,643	4,738	778,208	
14	Lucania	—	—	97,910	—	123,573	
15	Calabria	47,014	45,329	77,724	34,800	229,417	
16	Sicily	302	10	107,688	9,909	129,653	
	Sardinia	680	10,102	103,914	26,096	166,815	
	Total	1,046,189	979,809	1,595,107	782,639	4,733,982	
					330,238		

Land-Reclamation Area.	Value of Gross Production per Hectare.			Labour employed per Hectare.			Percentage of Casual Labour.	
	Initial.*	Final.*	Index of Increase (Initial Value = 100)	Initial.*	Final.*	Index of Increase (Initial Value = 100).	Initial.*	Final.*
	Lire.	Lire.		Hours.	Hours			
VENETIA:								
Left Bank of the Adige . . .	1,422	5,560	391	277	1,453	524	16	0
Caposile . . .	265	2,697	1,018	111	852	767	91	3
Lower Ongaro .	88	1,860	2,114	46	525	1,141	100	0
Bandoquerelle .	353	1,460	414	90	287	319	100	0
EMILIA:								
Ferrarese Reclamation . . .	435	2,162	497	173	623	360	100	15
Lower prov. of Ravenna . .	1,976	6,508	329	328	1,677	511	0	0
Gallare . . .	335	1,930	576	94	708	753	95	24
Parmigiana Moglia	516	3,012	583	139	946	680	0	12
TUSCANY:								
Plain of Cecina .	804	2,830	352	176	545	309	71	1
Grosseto Reclamation . . .	496	1,558	314	71	257	362	74	12
LATIUM:								
Isola Sacra . .	119	1,130	949	90	472	524	89	5
Roman Ager . .	712	1,940	272	135	540	400	38	3
CAMPANIA:								
Swamps of Sessa .	100	2,257	2,257	27	305	1,130	92	9
1st Vscan Zone .	612	3,284	536	206	430	208	43	1
APULIA:								
Tableland of Foggia	318	1,846	580	131	634	484	59	51
Murgie Baresi .	200	1,463	731	197	1,769	898	58	21
Salina Grande Taranto . . .	1,314	7,446	567	352	1,037	294	89	0
Estremo Salento .	355	1,100	309	230	1,000	435	70	35
SARDINIA:								
Terralba . . .	62	1,512	2,438	22	796	3,618	100	0
Sanluri . . .	131	1,010	771	40	337	842	5	0

* The initial values refer to the situation prior to the reclamation, the final values to the situation after reclamation.

1928,¹ the number of hours of farm work employed per hectare-year, the percentage of this amount of work given by permanent labour forces (whether small tenants or owners, crop-sharing farmers, fixed wage-workers, or peasants belonging to intermediary classes) rather than to casual labour, for one of the fundamental

¹ This year has been selected to avoid abnormal prices of the inflation period and abnormally low prices of the years following 1929.

objects of Fascist rural policy is the permanent settlement of the workers on the land they till.

These data are of the greatest importance in summarizing the economic, demographic, and social results of land-reclamation. They are reprinted in the table on page 34.

CHAPTER III

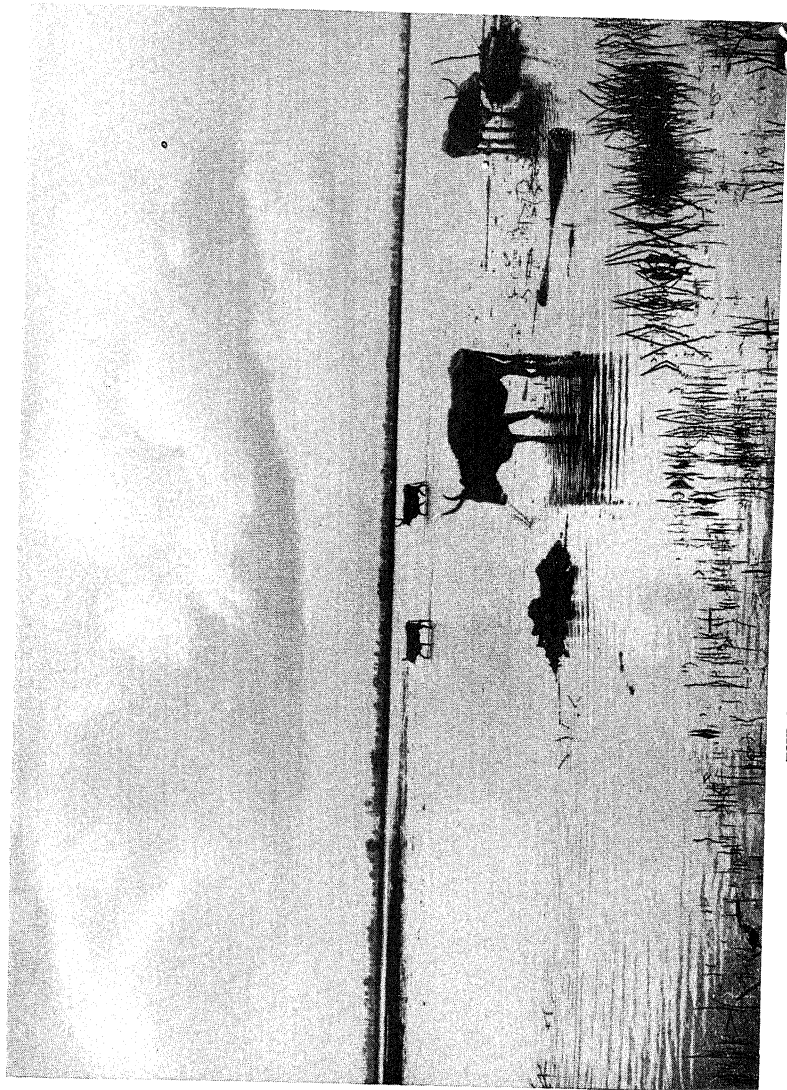
INTEGRAL LAND-RECLAMATION AND THE WHEAT CAMPAIGN

I. GENERAL NOTION OF THE WHEAT CAMPAIGN

THE table showing the distribution of the area assigned in Italy to the several crops, printed on page 37 shows that nearly one-sixth of the cultivated area is under wheat. Wheat is the most important and most widespread of Italian crops. It is cultivated throughout the country; on fertile and on poor soil, on humid and on dry, from the sea-level up to high mountain elevations. We need only mention as illustrating the infinite variety of local conditions and the extreme limits touched by wheat cultivation, that in the neighbourhood of Rome, starting from the sea-shore, it ascends hills and mountains, until it reaches, on the not far distant Mount Velino, much loftier than the "*nive candidum Soracte*" of Horace, such elevations and conditions that in August sowing is taking place on one small lot while the wheat sown in August of the previous year is being harvested on another, for there the cycle of growth is twelve months long, as in the coldest zones of Siberia.

Italy is a country of farmers, each of whom likes to grow his own wheat. Amid the great variety and multiplicity of crops, wheat has a place on every farm. In its simplicity it is a complex crop, for it requires rotations and cattle. Therefore the proclamation of the wheat campaign meant the concentration of the attention of all concerned on a concrete symbol which stands for agriculture as a whole, not excluding animal husbandry.

Italian agriculture has been perfected by a long



THE PONTINE AGGER BEFORE RECLAMATION.
Courtesy of Consorzio di Bonifica di Littoria.

**DISTRIBUTION OF THE NATIONAL TERRITORY ASSIGNED TO EACH CROP IN
1929, 1931 AND 1933¹***

CROP.	Area assigned to each Crop (thousands of hectares).		
	1929.	1931.	1933. ²
ARABLE LAND			
<i>Cereals</i>			
Wheat	4,773	4,809	5,086
Rye	124	123	115
Barley	234	218	207
Oats	523	464	449
Rice	137	145	128
Maize (spring crop)	1,415	1,298	1,291
„ (summer crop)	(90)	(99)	(138)
<i>Leguminous Plants</i>			
Seed beans	549	623	550
Other leguminous plants	383	435	384
„ „ „ (companion crops)	(271)	(300)	(265)
<i>Plants for Industrial Purposes</i>			
Sugar-beet	116	114	82
Hemp for fibre	91	57	57
Flax (fibre)	(7)	(4)	(3)
Linseed	11	7	4
Tobacco	38	42	35
Cotton	3	2	1
<i>Tuber Crops</i>			
Potatoes	261	322	309
„ (companion crops)	(90)	(90)	(90)
<i>Vegetables</i>			
Field vegetables	128	139	131
Vegetables (companion crops)	(66)	(72)	(68)
Permanent gardens	80	80	80
<i>Fodder Crops</i>			
Temporary meadows	1,908	2,281	2,278
Annual fodder crops	(316)	(378)	(377)
Catch	253	246	245
Other minor fodder crops	(272)	(369)	(397)
Fallow land, grazed or ungrazed	25	25	25
Productive or unproductive waste land	2,060	1,337	} 1,377
„	700	700	
TOTAL OF ARABLE LAND	13,812	13,467	12,835
PERMANENT MEADOWS AND PASTURE			
„	6,231	6,125	6,174
TREES, SHRUBS AND BUSHES			
Vines (unmixed crop)	787	1,008	987
„ (mixed crop)	(3,507)	(2,967)	(2,958)
Olives (unmixed crop)	577	807	806
„ (mixed crop)	(1,680)	(1,284)	(1,273)
Citrus { unmixed crop	48	48	63 †
fruit { mixed crop and scattered trees	(65)	(65)	(38) ‡
Orchards, mulberry trees, nurseries, etc.	155	155	376
TOTAL TREES, SHRUBS AND BUSHES	1,567	2,018	2,232
WOODS			
Fruit chestnuts	605	618	606
Other woods	4,981	4,968	4,955
TOTAL WOODS	5,586	5,586	5,561
Uncultivated productive land	1,251	1,251	1,177
Forest and agricultural land	28,447	28,447	28,519
Unproductive land (buildings, water, roadways and sterile land)	2,561	2,561	2,492
TOTAL AREA	31,008	31,008	31,010

* Data in parenthesis refer to areas of companion or multiple crops.

† Citrus orchards.

‡ Citrus fruits grown in union with other crops.

¹ Istituto Centrale di Statistica del Regno d'Italia, *Annuario Statistico Italiano*, year 1933.

² *Idem.*, *Bollettino mensile di Statistica agraria e forestale*, June 1934.

experience. The knowledge possessed by the Romans was already very advanced. The farming practices described by Virgil are nearly perfect, and further experience, secured in the course of centuries has been added thereto. Thus the specialization and adaptation of agriculture to local conditions is surprising, and accounts for the extremely divergent types of farming found in Italy and for the infinite gradations through which one method shades off into another. The farmers with whom this agelong experience is deposited are with good reason attached to their traditions. But science has attained further progress and modern civilization can avail itself of means formerly unknown. It was essential to secure for agriculture the enjoyment of all the benefits secured by modern civilization. To speak in abstract or generic terms would have been too vague, and Mussolini's psychological insight led him to train his guns on one single product, wheat, a product dear to all, the symbol of the family, the land, civilization, progress, life, the staple food, the pivot of Italian agriculture, and the visible sign of its nobility.

Of wheat converted into bread Mussolini has said:¹

Italians!—Love bread—Heart of the home—Fragrance of the board—Joy of the hearth.

Respect bread—Sweat of the brow—Pride of the worker—Poetry of sacrifice.

Honour bread—Glory of the fields—Fragrance of the earth—Festival of life.

Do not waste bread—Wealth of the Motherland—God's sweetest gift—The holiest reward of human toil.

When the farmer sees his social function recognized in the wheat he grows, and when for the sake of that wheat he brings to the highest degree of perfection the tillage of the soil, the use of fertilizers, the adoption of new breeds of seed, his systems of rotation, his livestock, his use of machinery, and his recourse to the economic

¹ Dictated by H.E. Mussolini for the "Bread Celebration" 14-15 April, 1928.

and social institutions at his service, then the whole of agriculture benefits by the latest improvements and the use of the new means now at the service of the farm is intensified.

The Wheat Campaign¹ was opened on 4th July 1925, by a decree-law, No. 1181, establishing a permanent wheat committee. Presided over by Mussolini the Committee was charged to study and submit to the Government proposals for increasing the wheat output of the country, and it drew up concrete suggestions which were embodied in legislation enacted in that same month of July 1925. These measures, and the others which followed have provided the rules regulating the Campaign, and can be summarized as follows :

(a) the foundation of organs to direct the Campaign (Permanent Grain Committee), carry on the propaganda work (Provincial Commissions for wheat propaganda), increase the efficiency and importance of the agricultural extension service (Travelling Chairs of Agriculture) (see p. 84) and the agricultural experiment stations;

(b) encouragement of special seed-breeding and mechanical seed selection, repression of fraud in the preparation

¹ See R. Festa Campanile, R. Fittipaldi, *Mussolini e la Battaglia del Grano*, Sindacato Nazionale Fascista Tecnici Agricoli, Rome, 1931, IX. Raffaele Festa Campanile, *Dopo un Settennio*, Messaggero Agricolo, anno IV, No. 49 of 3rd December 1932, Rome. Nazzareno Strampelli, *La cerealicoltura italiana ed i suoi problemi*, in "I Problemi attuali dell'agricoltura italiana," papers collected and edited by Luigi Federzoni with preface by Benito Mussolini, Bologna, 1933, XI. *Gli 88.35 quintali di grano per ettaro raggiunti alle porte di Milano*, "Corriere della Sera," A. 58, No. 171, 20th July 1933, XI, Milan.

See also *The Wheat Campaign in Italy*. Statement issued by the Ministry of Agriculture and Forests. General Direction of Agriculture. Revised Edition. Printing Office of the Chamber of Deputies, Rome, 1931, IX. Ministero dell'Economia Nazionale, *Provvedimenti adottati per l'incremento della coltivazione granaria*, Rome, 1927, V. Ministero dell'Agricoltura e delle Foreste, "Nuovi annali dell'agricoltura." Prof. E. de Cillis, *Gli insegnamenti del Concorso Nazionale per la Vittoria del Grano*, 1932, X. A report ordered by the Ministry of Agriculture and Forests, *Un quadriennio di sperimentazione per la cerealicoltura*, 1929, VIII. Sindacato Nazionale Fascista Tecnici Agricoli, *I Progressi della granicoltura italiana*, Rome, 1929, VIII. *Secondo quadriennio di sperimentazione per la cerealicoltura* (1929-33), Report arranged for by the Ministry of Agriculture and Forests, Portici, 1934, XII. R. Festa Campanile, R. Fittipaldi, *La Vittoria del Grano*. National Fascist Syndicate of Agricultural experts, Rome, 1934, XII.

and sale of farm requisites and farm products, compulsory construction of scientific fertilizer-tanks on the farm; encouragement of certain farm improvements and provision of irrigation systems;

(c) an import duty on wheat and a fixed percentage of home-grown wheat to be used by millers;

(d) exemption from custom's duty and sales tax on petrol required for farm tractors; awards to encourage the breaking up of fallow lands, motor-ploughing and electric tillage;

(e) provision of farm credit, with a special view to avoiding the hasty sale of the crop immediately after the harvest, so as to prevent price slumps due to the concentration of sales over too brief a period;

(f) provincial and national prize competitions to encourage the intensive cultivation of cereal crops.

The Wheat Campaign has four chief objects: (1) to emphasize the social function of farmers in the life of the country; (2) to improve their conditions; (3) to reduce the unduly heavy adverse balance of trade; (4) to secure for the country a certain degree of self-sufficiency as regards its food supplies.

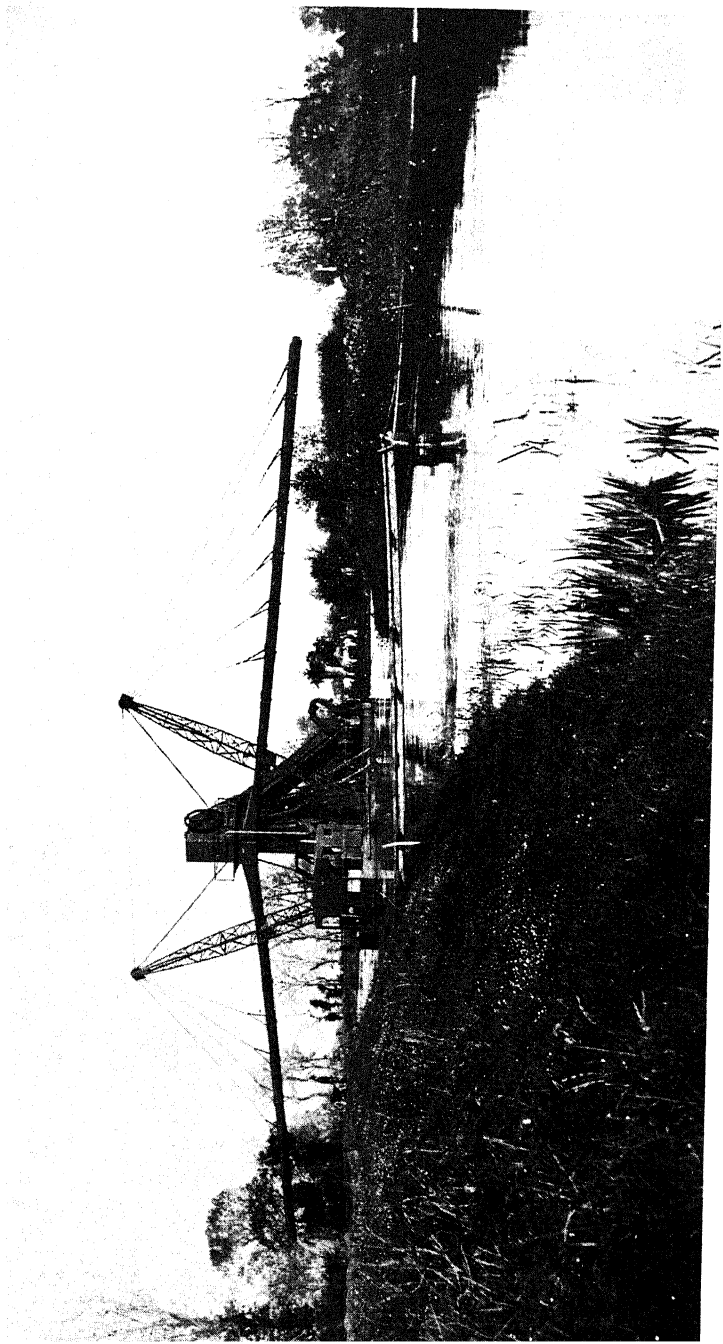
The relative importance of production, importation, and consumption of wheat in Italy is shown by the following figures, which also indicate the results already secured by the Campaign.

PRODUCTION, NET IMPORTS, AND APPARENT CONSUMPTION ¹ OF WHEAT
IN ITALY

Crop Year. 1st August-31st July.	Production.	Net Imports.	Apparent Consumption. ¹
Five Year Average	(metric tons)	(metric tons)	(metric tons)
1909-10 to 1913-14 ² . .	4,989,600	1,448,300	6,437,900
1920-21 to 1924-25 . .	4,848,740	2,586,060	7,434,800
1925-26 to 1929-30 . .	6,237,980	2,028,420	8,266,400
1930-31 to 1934-35 . .	6,873,740	798,800	7,672,540

¹ Actual annual consumption cannot be calculated as the data for total carry-over from one year to another are lacking.

² Data for the territory within Italy's pre-war frontiers.



DIGGING CANALS FOR THE RECLAMATION OF THE PONTINE AGER.
Courtesy of Consorzio di Bonifica di Littoria.

The following data, showing net Italian wheat imports and the adverse balance of trade, point to the pressure of wheat imports on the country's balance of payments. The extent of this pressure can be more accurately gauged if we take into account the fact that since the war the arrest of emigration has checked the flow of emigrant remittances, which formerly offset to a large extent the trade deficit on imports, of which a large percentage (over 60 per cent in the first years of the Campaign, 1926-8) is accounted for by foodstuffs and raw materials. Therefore, if the trade deficit was to be reduced without lowering the standard of living of the masses, reduced imports of foodstuffs had to be offset by larger home-grown supplies.

NET ITALIAN WHEAT IMPORTS ¹ AND ADVERSE BALANCE OF TRADE

Year.	Net Wheat Imports. ¹		Trade Deficit.
	Volume. ^{1 2}	Value.	
	(metric tons).	(lire).	(lire).
1920	2,129,900	5,136,000,000	15,047,000,000
1921	2,794,900	5,325,000,000	8,647,000,000
1922	2,653,500	3,026,000,000	6,462,000,000
1923	2,661,900	2,909,000,000	6,096,000,000
1924	1,954,900	2,298,000,000	5,008,000,000
1925	2,137,500	3,678,000,000	7,926,000,000
1926	2,113,700	3,480,000,000	7,214,000,000
1927	2,285,400	2,971,000,000	4,741,000,000
1928	2,713,500	2,920,000,000	7,365,000,000
1929	1,681,400	1,644,000,000	6,429,000,000
1930	1,874,300	1,517,000,000	5,227,000,000
1931	1,398,300	784,000,000	1,434,000,000
1932	885,100	409,000,000	1,456,000,000
1933	278,200	130,000,000	1,441,000,000
1934	235,700	118,000,000	2,441,000,000

¹ Imports and exports of wheat flour have been included in wheat imports, at the rate of 1 ton of flour to 1½ ton of wheat.

² The data in this column not only differ from those given in the previous table because they refer to the calendar and not to the wheat year (1st August-31st July), but slight variations are also due to the fact that they are taken from the annual statistics (*Movimento commerciale del Regno d'Italia*) which give the final corrected figures, whereas the calculations for the wheat year are based on monthly returns which are provisional.

2. THE CAMPAIGN PRESENTS THREE PROBLEMS

In July 1925, Mussolini, presiding over the opening meeting of the Permanent Wheat Committee, outlined its policies as follows:

1.—It is not strictly necessary to increase the area under wheat in Italy. Land must not be taken from other crops which may be more profitable and which are anyhow necessary to national economic life. Any increase of the area under wheat should therefore be avoided. It is the unanimous opinion that the number of hectares sown to this crop in 1924, can be made sufficient.

2.—It is, however, necessary to increase the average yield of wheat per hectare. An average increase, even if modest, gives very marked global results.

Starting from these principles, the work of the Permanent Wheat Committee must deal:

1—with the problem of seed selection.

2—with the problem of fertilizers and of technical improvements in general.

3—with the problem of prices.

The first of these problems presented two aspects:

(a) that of breeding new and superior types of wheat, resistant to the major ills from which Italian wheat crops suffer, to wit, cryptogamic diseases, lodging, and shrinkage. To resist the latter, the wheat should ripen early so as to escape unfavourable weather during the final period of growth, when in a few days, sometimes in a few hours, sudden scorching heats are liable to hasten the ripening process, thus impoverishing the kernel of the grain and not infrequently halving the yield.

(b) the other aspect was the need that the new varieties of seed should possess qualities enabling wheat growing to be placed on a profitable business basis by large investments of working capital in the different phases of wheat farming. For this purpose they should ensure early crops and very high yields, two requisites essential to profitable wheat growing.

The fact that these two aspects of the problem have been solved is one of the most instructive sides of recent

agricultural progress in Italy, for it shows that the determination to succeed leads to the discovery of means which by overcoming fundamental difficulties open up new possibilities. Thus gradually programmes, whose realization, considered from an exclusively materialistic point of view, seemed quite impossible, are placed on entirely new economic foundations.

Italy can now avail herself of several selected breeds of wheat suited to her very varied environmental conditions and needs. Confining ourselves exclusively to those bred by that enthusiastic worker, Senator N. Strampelli, they include among early varieties the *Damiano*, *Villaglori*, *Ardito*, *Fausto*, *Edda* and *Balilla*, all suited to the more fertile soils from which the highest yields can be obtained; the *Mentana*, a coarser variety much more adaptable to any kind of land and any kind of farmer; among the normal ripening varieties are the *Virgil*, very resistant to rust, which is gradually replacing the late varieties of wheat; the *Baionette*, the *Cambio*, *Terminillo*, *Costacalda* *Aremogna*, suited to high elevations, the *Carlotta* and the *Varrone*, suited to the deep, humid soils of North Italy, the hard *Cappelli*, a marvellous variety for the southern regions, and the hard, early-ripening *Aziziah*.¹

The use of selected, and more especially of early ripening varieties, has spread rapidly since 1926; in 1931 it was estimated that they accounted for 46 per cent of the entire wheat crop of the country; in 1932 the percentage had risen to 54.9 per cent. A study published by the Central Statistical Institute² shows that the area sown to selected seed in 1933 accounted for 57.1 per cent of the total area under wheat, and that their use was further extended in 1934, accounting for 61.7 per cent of the total, the maxima being attained in North and Central Italy with 93.3 per cent

¹ See *op. cit.* by Raffaele Festa Campanile. See Nazzareno Strampelli, *Early Ripening Wheat and the Advance of Italian Wheat Cultivation*. Rome, 1933. Istituto Nazionale di Genetica per la cerealicoltura in Roma, *Origini, sviluppi, lavori e risultati*, Rome, 1932.

² *Bollettino Mensile di Statistica Agrariae Forestale*, Rome, January 1935.

and 76.3 per cent respectively, and the minima in South Italy and the Islands with 44.0 per cent and 23.5 per cent respectively. The early ripening varieties have even made it possible to secure two crops: wheat followed by rice, wheat followed by maize, etc. on the same field during the same year.

If we turn to improvements in cultivation we find that not only has there been an increase in the use of fertilizers and machinery, but that the soil is now tilled with much greater care, and much more attention paid to the cultivation of wheat during the growing season.

The problems connected with the price of wheat centred at first round the stabilization of the currency, which was carried out in 1926 when the Italian lire was stabilized at the rate of 90 to the pound sterling and of 19 to the dollar.

In July 1925 the home price of wheat was protected by re-enacting the pre-war import duty of 75 gold lire per metric ton. The duty was subsequently raised to 110 gold lire in September 1928, to 140 in May 1929, to 165 in June 1930, and to 750 current lire in August 1931. The protection given by the duty, in itself insufficient to prevent the slump prices ruling on the international market from affecting the home price, was reinforced by the decrees requiring millers to use fixed percentages of home-grown grain.

In view of the abundant harvests foreseen for 1933, this percentage¹ was raised as from 16th July 1933 to 99 per cent of the total quantity of wheat ground by the mills.²

This measure was repealed by a decree of 30th March, 1935, subsequent to one of 28th January 1935 which included wheat and wheat-flour among the products the importation of which was forbidden for reasons of a general character, and to other decrees

¹ Ministerial decree of 28th June, 1933, *Gazzetta Ufficiale*, 8th July 1933, No. 157.

² For the measures adopted by European countries see Institut International d'Agriculture, *Documentation pour la Conférence Monétaire et économique* (Londres, 1933), Rome, 1933.

regulating the matter in relation to the general foreign trade policy.¹

Again, in view of the forecast of a bumper crop in 1933, and so as to avoid the well-known phenomenon of price depression during the period immediately following the harvest, funds were made available with which to make advances on wheat stored in the elevators

AVERAGE MONTHLY AND ANNUAL WHOLESALE PRICES FOR WHEAT *
Lire per metric ton.

Month.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.†	1934.‡
SOFT WHEAT									
January . .	1,980	1,820	1,330	1,340	1,360	1,030	1,110	1,090	860
February . .	1,980	1,790	1,350	1,380	1,340	1,060	1,160	1,070	860
March . . .	1,940	1,710	1,410	1,380	1,320	1,040	1,200	1,050	860
April . . .	1,990	1,500	1,470	1,360	1,360	1,060	1,210	1,010	880
May. . . .	2,060	1,460	1,490	1,310	1,380	1,130	1,230	940	860
June. . . .	2,170	1,290	1,440	1,270	1,410	1,010	1,180	890	840
July. . . .	2,060	1,240	1,250	1,240	1,250	930	1,000	880	830
August . . .	2,080	1,180	1,210	1,210	1,250	900	990	870	840
September . .	2,050	1,160	1,260	1,230	1,230	960	1,040	860	850
October . . .	1,950	1,170	1,320	1,290	1,180	960	1,050	830	860
November . .	1,910	1,250	1,320	1,290	1,100	1,020	1,090	810	890
December . .	1,870	1,280	1,310	1,330	1,020	1,050	1,090	830	910
Annual average.	2,000	1,400	1,350	1,300	1,270	1,010	1,110	930	860
HARD WHEAT									
January . . .	2,020	2,030	1,350	1,420	1,470	1,190	1,320	1,190	1,020
February . . .	2,040	2,030	1,360	1,450	1,460	1,250	1,340	1,180	1,040
March	2,010	2,000	1,440	1,490	1,430	1,290	1,360	1,180	1,050
April	2,050	1,900	1,560	1,480	1,410	1,300	1,370	1,170	1,060
May.	2,100	1,760	1,590	1,420	1,400	1,350	1,350	1,100	1,040
June.	2,100	1,600	1,550	1,390	1,390	1,280	1,270	1,050	1,000
July.	2,160	1,430	1,370	1,330	1,340	1,210	1,130	1,040	950
August	2,170	1,340	1,290	1,300	1,340	1,170	1,120	1,000	950
September . .	2,130	1,310	1,310	1,320	1,330	1,210	1,170	980	980
October	2,100	1,290	1,390	1,390	1,290	1,240	1,190	980	1,010
November . . .	2,090	1,320	1,410	1,410	1,250	1,290	1,190	970	1,020
December . . .	2,080	1,320	1,400	1,450	1,180	1,310	1,200	980	1,040
Annual average.	2,090	1,610	1,420	1,400	1,360	1,260	1,250	1,060	1,010

* Istituto Centrale di Statistica del Regno d'Italia, *Annuario Statistico Italiano*, 1933; 1932; 1931.

† *Idem.*, *Bollettino mensile di Statistica Agraria e Forestale*, February 1934.

‡ *Idem.*, *Bollettino mensile di Statistica Agraria e Forestale*, February 1935.

¹ See International Institute of Agriculture, *State Aid to Agriculture*, an international quarterly summary of Government measures affecting the prices of cereals, meats and dairy products, Rome, 1935.

of the farmers' associations, at the rate of 900 to 850 lire per metric ton. Similar measures were taken for the 1934 crop, so as to make available to the farmers advances at the rate of 900 lire per metric ton on hard wheat and 750 lire on soft. The Wheat Committee at its meeting of 13th June 1935 raised the advance to be made to the farmers on wheat of the new crop deposited with the pools to 900 lire per metric ton of soft wheat of merchantable quality.

The table on page 45 shows the average monthly prices of wheat ruling in Italy since 1926.

3. RESULTS

The table on page 47 shows that the Campaign has secured the desired increase in the yield per unit of area. It is the general opinion that the returns for the 1934 harvest illustrate more than any other the efficacy of the campaign, for without it the yield for the country as a whole would have been one of the lowest on record, mainly on account of the injury caused by excessive rains in the autumn and winter. When this volume was already under press the following data for the 1935 wheat crop became available: area 5,027,000 ha.; production 7,714,500 metric tons; yield 1.53 metric tons per ha.

The following particulars published by the *Corriere della Sera* on the crops obtained at the gates of Milan have lost none of their value as a description of some of the technical details of the Wheat Campaign, although they refer to the harvest of 1933.

In 1931, when the harvest of the whole country yielded 6.7 million metric tons of wheat, the yields obtained with early ripening varieties rose to as much as 6, 6.5, and 6.8 metric tons per hectare, results then considered quite exceptional but which were exceeded in 1932 by yields rising to 7.2, 7.3 and even 7.4 metric tons per hectare, and this not on experiment fields, but over farms covering several hectares. In 1933 the *Corriere della Sera* records a yield of 8.83 metric tons per hectare.

CEREAL CROPS IN ITALY
Area, production and yield

CEREALS.	Unit of Measure.	Six-Year Average 1909-14. ¹	Six-Year Average 1920-5.	Six-Year Average 1926-31.	Year 1932. ²	Year 1933. ²	Year 1934. ²
WHEAT:							
Area	hectares	4,760,000	4,658,750	4,880,300	4,931,000	5,083,000	4,967,000
Production	metric tons	4,927,200	5,128,000	6,183,000	7,536,600	8,109,900	6,343,000
Yield per hectare . .	" "	1.03	1.10	1.27	1.53	1.60	1.28
RYE:							
Area	hectares	122,610	123,000	122,000	117,000	114,000	112,000
Production	metric tons	135,060	152,000	160,000	160,400	171,200	142,400
Yield per hectare . .	" "	1.10	1.23	1.32	1.37	1.50	1.27
BARLEY:							
Area	hectares	247,790	224,380	230,800	210,000	207,000	199,000
Production	metric tons	208,430	207,550	238,700	247,500	226,400	203,500
Yield per hectare . .	" "	0.84	0.92	1.03	1.18	1.09	1.02
OATS:							
Area	hectares	504,260	477,400	505,700	446,000	448,000	424,000
Production	metric tons	511,770	516,983	596,400	603,400	574,200	490,000
Yield per hectare . .	" "	1.01	1.08	1.17	1.35	1.28	1.15
MAIZE:							
Area	hectares	1,602,520	1,529,100	1,459,600	1,448,000	1,431,000	1,479,000
Production	metric tons	2,568,300	2,384,680	2,335,200	3,015,700	2,590,600	3,192,800
Yield per hectare . .	" "	1.60	1.56	1.59	2.08	1.81	2.16

¹ Data for the territory within Italy's pre-war frontiers.

² Data calculated taking into account the results of the new agricultural survey.

The article describes the five following types of farm and the results secured:

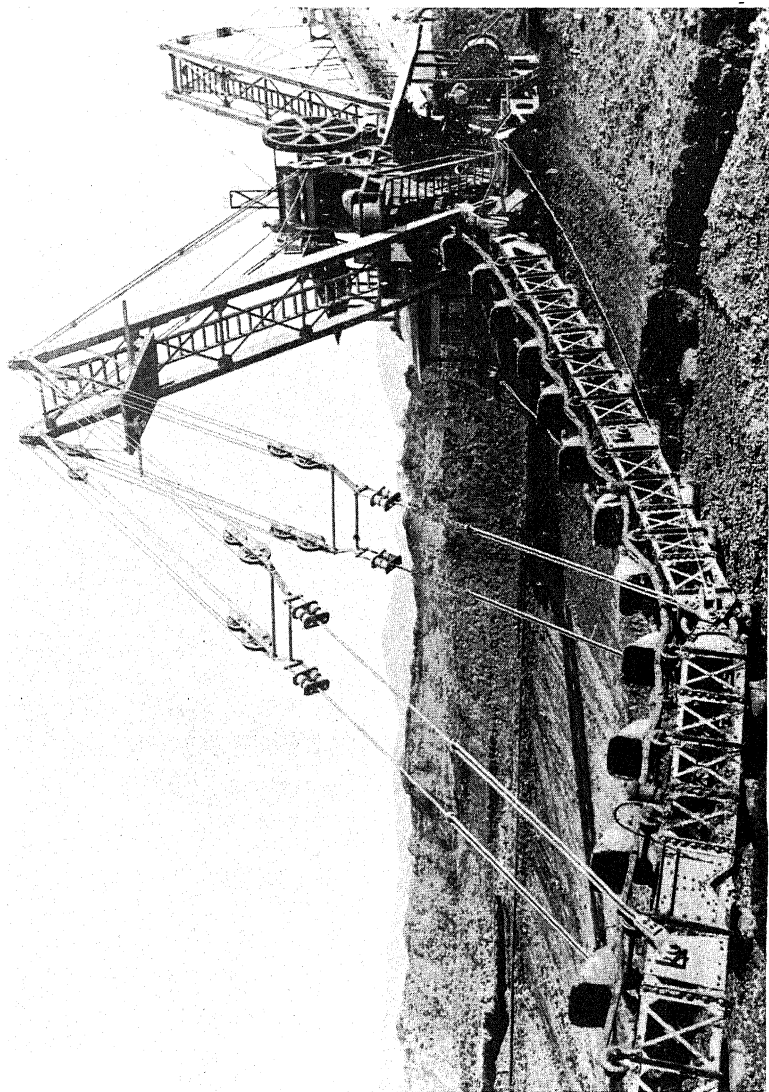
(a) Ettore Lampertico's Farm (Bruzzeno)—in the neighbourhood of Milan with experimental fields (orchards, market gardens, etc.). On this farm 112 hectares of land, formerly cultivated on the crop-sharing system, have been organized on a commercial basis. A few years ago wheat yields averaged 1.4 to 1.5 metric tons per hectare; this year (1933) 6.2 metric tons per hectare were obtained, the maxima yields being 7.05, 7.2 and 7.3 metric tons per hectare.

Thirty-four hectares were seeded with the *Damiano Chiesa* variety of wheat, sown variously, in single, double, triple, and ribbon rows; 180 kilograms of seed per hectare, ten dressings with fertilizer before and during the growing period; 1.8 metric ton of superphosphates per hectare, 0.5 of nitrate of soda, 0.3 of potash. Very up-to-date farm; silos, large store-houses, perfect stables with 138 milch cows, 90 heifers, 18 horses.

(b) Armando Lampertico's Farm (Masocco). Won the previous year the award of 50,000 lire handed to him by the Duce, which he has invested entirely in further land improvements. Mediocre land because nearly all on quarries. The previous year, 1932, secured an average output of 5.64 metric tons of wheat per hectare, the maximum yield being 6.4; in 1933 obtained an average yield of 6 metric tons per hectare with maxima yields of 7.5 metric tons.

Twenty-four hectares were under wheat of the *Damiano Chiesa* variety, sown in ribbons; 1.75 metric ton of superphosphates per hectare, 0.4 of potassic fertilizer, 0.35 of nitrogenous fertilizer were used; the land was repeatedly hoed and weeded. Very modern farm, fine barns for storing the grain, beautiful stables fitted according to all the latest ideas, with special boxes for pregnant cows; chilling and filtering plant for the milk which is supplied to Milan, etc., 100 milch cows, 60 heifers, 12 horses.

(c) Boni's Farm at Campazzo. In the neighbourhood



DIGGING CANALS FOR THE RECLAMATION OF THE PONTINE AGER.
Courtesy of Consorzio di Bonifica di Littoria.

of the *marcite*¹. Average-sized farm covering 65 hectares. Average wheat yield, 6.6 metric tons per hectare with a maximum of 6.91.

Seven hectares were seeded with the *Damiano Chiesa* variety of wheat. One metric ton of superphosphates per hectare, 0.3 of potash, 0.35 of nitrogenous fertilizer were used. Modern farm with 1.2 metric ton of cattle per hectare, corresponding to the abundant forage available, and consequently supplying large quantities of stable manure; 130 milch cows and 50 heifers.

(d) Farm of the Brothers Belloni (Mirabello di Turano). In the province of Lodi, a zone in which the irrigation system, the levelling of the soil and the surface drainage bears witness to the reclamation works carried out by the Cistercian Friars. Very fertile soil. Average wheat yield approximates 6 metric tons per hectare.

¹ The Lombard *marcite* are perfectly levelled lands, slightly sloping, like a roof with a slight incline, running on either side of a small irrigation ditch, situated at their highest point, and from which a very thin sheet of warmish water overflows spreading over the surface of the two lots and then flowing into drainage ditches whence it is carried off to irrigate other fields arranged on the same system. The purpose is not only to irrigate the land but also to prevent accumulations of snow or the formation of ice in winter. By these means the twofold advantage is secured of obtaining a very heavy yield of green fodder, and obtaining it throughout the year, a very important matter for dairy farming. The large and steady output of forage is encouraged by intensive manuring, rendered all the more necessary by the very porous character of the soil, consisting of a few decimetres of excellent soil, artificially made on the former gravelly beds of streams. In some zones the water used is rich in fertilizing matter, as it comes from the sewage of the city of Milan. The land is frequently dressed with fertilizer, a little at a time, much stable manure being used, which, to ensure more rapid absorption, is mixed with earth and known as "*terricciato*." Ladine clover is the forage crop most generally sown, as it has a wide-spreading, superficial root system. The drainage water, which carries off a portion of the fertilizer, is used for irrigating the further lots, as above described.

Referring to the environment, Dr. C. J. Robertson notes the following characteristics: "The character of the landscape is thus to an exceptionally high degree due to human intervention, principally through irrigation, drainage, and soil amelioration. Even geological distinctions between different agricultural zones have been rendered inoperative. In other words, we are concerned with a cultural landscape of the first grade, where a strictly controlled water supply and richly improved soil allow highly rationalized rotation systems to be worked out and combine with the warm summers to make an area of intensive and luxuriant crop production."—*Italian Rice Production in its Regional Setting*, Reprinted from *Geography*, March 1935.

Fifteen hectares were seeded with the *Damiano Chiesa* variety of wheat, sown in double rows; 1.2 metric ton of superphosphates, 0.25 of potash, 0.6 of nitrogenous fertilizer were used per hectare. Eighty milch cows and 50 heifers. The farm is fully equipped from stables to dairy, from pig-sties to scientific poultry-run, apiary and orchard.

(e) Farm of the Brothers Castelnuevo (Cascina Roma at San Donato Milanese). Farm of 54 hectares. During the first year of the wheat campaign, 4.2 metric tons of wheat per hectare were secured, and it was considered a striking success; in 1932 7.41 were reached, the highest yield obtained in Italy; in 1933 on the same 6 hectares an average of 8.05 metric tons per hectare were secured with a maximum of 8.83 on two hectares.

Six hectares were planted to wheat; 180 kilograms of seed per hectare, sown in single rows; heavy dressing of stable manure at the rate of 120 metric tons per hectare. 1 metric ton of superphosphates, 0.75 of nitrogenous fertilizer, 0.35 of potash. After seeding, the land was manured and dressed with nitrogenous fertilizer three times during the winter. Deep ploughing, repeated hoeing and weeding, accurate preparation of the soil ever since the maize crop which preceded the wheat.

Excellent research work is done on this farm. Selected breeds of cattle, one of the milch cows gives 107 hectolitres of milk per annum. 1.9 metric ton of cattle per hectare allow of abundant manuring with stable manure; 80 milch cows, 18 heifers, 12 horses.

* * * * *

With its yield of 8.1 million metric tons the 1933 harvest suffices to meet the needs of the home market, leaving a margin of safety for poor crop years and for increased consumption, and marks the victory of the wheat campaign, as Mussolini pointed out to the meeting of the Permanent Wheat Committee on 21st November 1933. Taking the results thus secured as a basis, the Duce was able to indicate as follows the

further developments of the programme for the Campaign, which are reflected in the new rules drawn up for the national prize competition¹ for the Wheat Victory. In this connection he said:

As the competition is to point to the logical development of the activities of the Wheat Campaign, it should recall—and it will do so even in its name—that the Wheat Campaign aims at encouraging progress with a view to improving the cultural-economic system and the farming technique of the leading crops, on the basis of practical experience and scientific experimentation now being exhaustively made in the several typical zones of the country. Starting with the crop-year 1934-5, the national prize competition for the Wheat Victory will therefore make way for the “National Prize Competition for Wheat and Farming,” which will aim at securing such co-ordinated objectives as that of obtaining, along with further progress in the yield of wheat per unit, the increase of forage crops and the improvement of animal husbandry, surface drainage and the reconditioning of lands; the increase of market-gardening and fruit crops. The competition is therefore of a comprehensive character and its rules will have to be carefully studied and will ensure further progress for Italian agriculture along the path of technical progress and economy in production costs.

* * * * *

The facts we have set forth in this chapter clearly show the connection between integral land-reclamation and the Wheat Campaign. Indeed, the two undertakings complete one another. Land-reclamation makes new rural areas available for utilization along progressive lines; the Wheat Campaign raises to the utmost the value of the crops, thus coming to the assistance of that agricultural progress which is not only the purpose of integral land-reclamation but is also the means which makes it possible to confer on it an integral character.

¹ In connection with the 1934 harvest, 1,136,000 lire were distributed in awards on the 25th November 1934 to the winners of the provincial prize competitions, and 864,000 lire were distributed in Rome on the 2nd December to the winners of the national prize competition. Thus a total sum of 2 million lire has been paid out in awards to prize-winners in this competition in which some 15,000 persons took part.

CHAPTER IV

LAND-RECLAMATION LEGISLATION

I. PRE-FASCIST LEGISLATION ¹

THE Mussolini Act of 24th December 1928, No. 3134, providing for the reclamation works now being carried out, marks the final phase of a legislative evolution introduced by Fascism in the field of public works which has completely altered the policies previously followed, of which we will now give a brief outline.

The first law enacted on public works in the Kingdom of Italy was that of 20th March 1865, No. 2248. Being largely copied from the Piedmontese law of 20th November 1859, No. 4754, it reflected the conditions then existing in Piedmont, and failed to take cognizance of the much more difficult situations in other parts of Italy.²

As a result, the law failed to meet the needs of the major portion of the country for the following reasons: (a) it provided for the conservation of improvements already made but did not provide for those which still had to be carried out; (b) by restricting the field of government intervention it failed to take cognizance of the fact that if in Piedmont private enterprise was able to replace or complete such intervention, this owing to environmental difficulties and problems was not the case in other regions; (c) the isolated and disconnected

¹ See Dr. Eliseo Jandolo, Director General of Integral Land Reclamation, *La Bonifica integrale e il progresso della legislazione sulle opere pubbliche*, Rivista di Diritto Agrario. Reprint from Nos. 4, 5, 6, April-June 1930, Florence.

² Conditions in Piedmont were more favourable not only climatically and geologically, but also because of the physical, social and economic status secured by that State which had not the urgent need of new adjustments required by other regions.

measures for which it provided, while suited to a plan for completing and perfecting measures already taken, hindered the co-ordination of those required for securing in other regions new and essential adjustments.

This law stressed the importance of means of communication, and besides providing for railways and roads, it viewed the problems presented by national water-courses principally from the point of view of internal navigation. Consequently government action for their conservation was limited to the upkeep and regulation of existing embankments, and took no account of the mountain torrents which were the fundamental cause of the floods and other troubles afflicting large sections of the country; no attention was paid to soil erosion and the denudation of mountains or to the problems of irrigation; and land-reclamation was regarded as a branch of land improvement which was the concern of the landowners. Consequently this law which neglected the major needs of the agriculture of so many regions, marked a backward step when compared to some of the legislation in force prior to the foundation of the Kingdom of Italy.¹

¹ Legislation on these matters differed widely in the several Italian States, as it was in keeping with geological, climatic, historical, and other environmental conditions differing widely from one State to another. So widely, indeed, that it is perhaps from these extreme differences that Italy derives her characteristic strength, the factors which allow of revival, compensation, and profound reactions. A general study of the legislation then existing on these matters, its history and origins, has not yet been undertaken. Such a history would, indeed, be that of land-reclamation in Italy, and therefore, under the present day interpretation of land-reclamation, it would be the history of Italian agriculture. If this history were written it would show the close connection between the organization of agriculture and the various phases of civilization which have flourished on Italian soil. The light such a study would throw on the subject might lead to a better identification of the vital causes of the rise, decline, and revival of those civilizations, and would make a valuable contribution to further researches on the fundamental factors regulating the destiny of nations.

Valuable studies have already been made on the history of land-reclamation in some regions; some fundamental points have been established and they show what valuable lessons that history contains. But extensive studies still have to be made if we desire to know all the vicissitudes of land-reclamation from the times when the primitive inhabitants of the Valley of the Po strove to bring within ever narrower limits—approaching those of the present river bed—the area of the prehistoric Paduan Gulf down to the period immediately pre-

Slowly, in the course of some twenty years, the interests of agriculture began to be taken into consideration. And this change, for various reasons, took place at the time in which the country was turning from Free Trade towards Protection. First came a law of 1873 on irrigation regulating irrigation consortia, regardless of the fact that it was practically impossible to form such consortia in the South where the need of irrigation was most urgently felt.

Then the gravity of the health problem brought to the fore the importance of land-reclamation considered

ceding the unification of Italy when Ferdinand II promulgated in 1855 a Royal Rescript which may be described as the law nearest to the present Fascist legislation.

The points of similarity between that Bourbon law of 11th May 1855 and the present legislation are due to the fact, that after many decades of pressure and a long preparatory work in the field of thought carried out by men of rare gifts, it had the merit of unifying the administration of land-reclamation to which it entrusted the task of draining all the marshy land of the Kingdom of the Two Sicilies, promoting the agricultural progress and prosperity of the inhabitants, consolidating mountain slopes, founding land-settlements, etc. The arrangements made for financing the work were, however, defective; and moreover the administration set up proved to be totally inadequate for the task. It is not possible to say how far the failure of the law was due to the indifference and lack of understanding of the Government of the period, but it was lacking and it could not have been otherwise, in that definite and invincible will which alone makes it possible to face problems so full of difficulties due to the nature of things and to persons. It would therefore be a mistake to suppose that integral land-reclamation was already being undertaken at that date.

Evidently the expression "integral" might be used in relation to the then existing situation, but in that case it would not be used in a sense wide enough to cover the present Fascist reclamation work. A reply to the persistent enquiries constantly made as to the mechanism employed by this Fascist reclamation and the forces which govern its mode of procedure, would have to call attention to the fact that, apart from the improved technical and mechanical means now at our disposal, the originality of Fascist integral land-reclamation is to be found in its political, social, and economic value, in the determination of the Government to carry it out at all costs, in the provision of financial means adequate to the technical results aimed at, in the clear-cut organization, the definite assignment of responsibilities, the scrupulous and accurate distribution of costs, the rapid adoption of all those revisions or alterations which experience may show to be desirable, the active co-operation of all concerned, a new organic conception of social solidarity. Integral land-reclamation is a phenomenon of action, moving inexorably forward towards a pre-established goal, inspired by a determination formerly unknown. It is one sector of the Fascist corporative régime.

Among the interesting documents of the period referred to by Ciasca in his

in its aspects of draining and raising the level of marshy zones, as it was then believed that they alone were the cause of malaria. This led to the enactment of the first Italian land-reclamation act, the Baccarini Act of 1882.¹

This Baccarini Act, with additions and amendments, remained the fundamental land-reclamation measure down to the enactment of the Fascist legislation. It further accentuated the disparities between Northern Italy, which could benefit by its provisions, as the marshes were mostly situated in that section of the country where environmental conditions were less unfavourable, and the southern and insular section in which malaria,

Storia delle Bonifiche del Regno di Napoli (Bari, G. Laterza e Figli, 1928) is one of particular interest as characteristic of the period and clearly inspired by the philosophy of Vico. It is a document written by the Abate Andrea Dini, being part of a request made by him and other landowners, on 3rd September 1818, desirous of undertaking the reclamation of certain flooded lands in the districts of Monte Corvino, Eboli, and Capaccio: "The olive branch of peace, which seems likely to flourish long in our midst, now affords the opportunity, and fixes the date in our day; if we neglect this opportunity the undertaking will be abandoned for ever, and the opportunities for improvement which nature affords all men and all political associations, forming families, cities, and nations, will remain buried for these beautiful and unhappy lands, as they have remained buried for the whole country during these last three centuries of the vice-regency." And Ciasca goes on to say "The director general of bridges and roads noted on the margin of art. 1 of the project that among the unhealthy lands belonging to private owners which would have to be expropriated to make them over to the proposed Company were those of Prince D'Angri in Eboli, whose 'swamps give off miasmas.' This was sufficient reason for pigeon-holing the request, and nothing more was heard of it." At the present day a great many members of the Italian aristocracy are giving their valuable support to integral land-reclamation and not one of them, should he so desire, would be able to arrest the progress of this work of social justice.

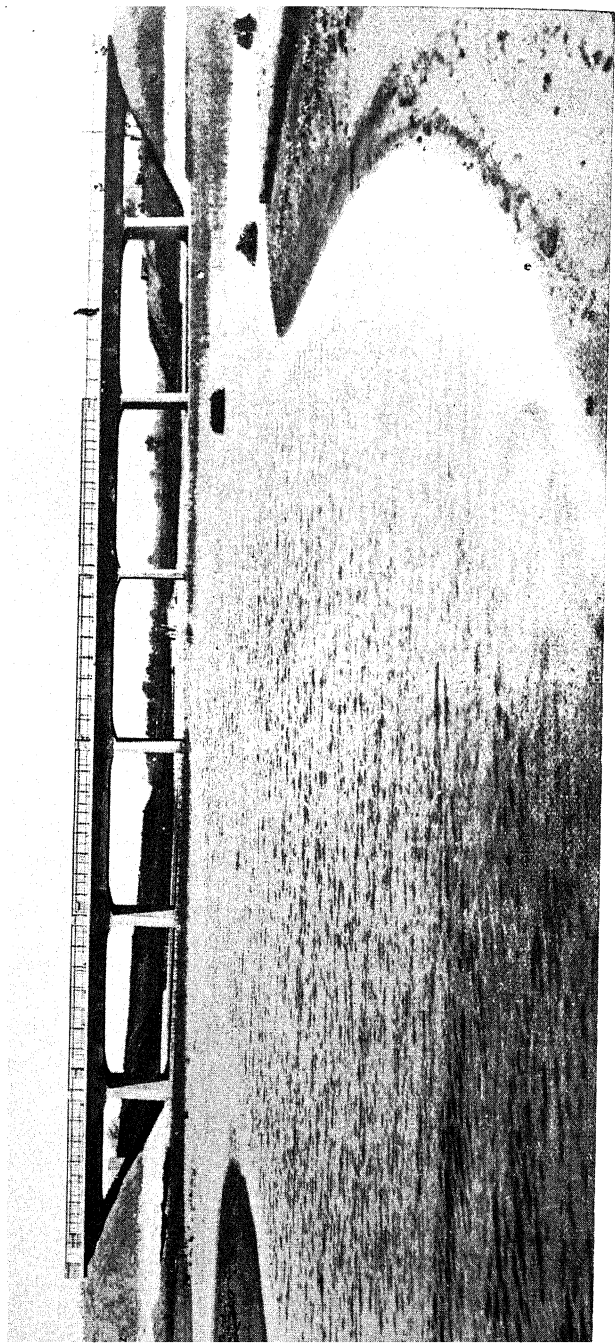
¹ This act divides land-reclamation works into two categories, the first covering works carried out chiefly with a view to hygienic improvements, in which notable agricultural advantages are associated with those of sanitation; the second covering all other reclamation works. Those of the first category were carried out by the Government, which met half of the cost, the other half being charged to the provinces, communes, and landowners concerned. When the works had been carried out they were made over to the landowners who became responsible for their upkeep. Second-category land-reclamation works had to be carried out and kept up by the owners, organized in consortia, or separately, who were entitled to receive a contribution from the Government, the provinces, and the communes concerned, amounting to one-tenth of the cost of the works. The reimbursement of this contribution might be demanded of the landowners when the reclamation had been completed.

an unregulated water régime with alternating floods and droughts, and uncultivated lands formed a vast complex, due only in a minor degree to the presence of marsh-lands.

In 1877 a law was enacted for protecting mountain areas by placing restrictions on the use of forest and other lands (*vincolo forestale*); under this act the woods and forests were the only factors taken into consideration and the activities of the inhabitants were restricted. A subsequent law, enacted in 1893, provided government aid for the regulation of the mountain and valley sections of torrential water-courses, but the southern provinces were only able to avail themselves of those measures in 1911, when the provisions of the act by which the initiative of such undertakings was left to associations of landowners were amended and the whole cost of regulating mountain areas was placed on the Treasury.

As regards irrigation, a law enacted in 1883 provided for government subsidies, but here again the South was unable to benefit thereby until by the measures passed in 1915 and 1919 the minimum limit of utilization admissible for a grant, fixed at a level which excluded small irrigation systems, was removed and possibilities afforded for carrying out great works for building mountain reservoirs and artificial lakes. But in this case also, the improvement secured was partly offset by the defect of increased specialization. The different ways for utilizing the water gave rise to separate measures, accentuating the original defect of the legislation, which divided into two sections—protection and utilization—the problem of water-regulation, which should have been dealt with as a whole.

So again in the matter of roads; as legislation was gradually extended to cover new categories, a whole series of acts were passed (1868, 1869, 1873, 1881, 1903, 1906, 1908) dealing with the matter in even more fragmentary fashion by measures for connecting up urban centres of population and traffic, while taking no cognizance of the need for rural communications.



THE MUSSOLINI CANAL AND BRIDGE IN THE PONTINE AGER RECLAMATION.
Courtesy of Consorzio di Bonifica di Littoria.

Such, briefly summarized, and passing over minor acts and those of a special character such as the law for the Roman Ager,¹ was the legislative situation prior to the advent of Fascism. It was characterized by the following features, acutely analysed by Jandolo: (*a*) excessive specialization of laws enacted to meet special needs (hydraulic protection, the utilization of water, the provision of roads, etc.), or the special technical character of individual works (reclamation schemes, mountain-land improvements, drainage works in the plains, irrigation works, artificial lakes, etc.). Thus the several measures were brought under various jurisdictions and an isolated consideration of detail replaced an organic view of the territory and its requirements as a whole. This made it impossible to co-ordinate special aims and means so as to secure the attainment of common ends; (*b*) neglect of rural needs due to the lack of an organic solution of the complex problems at issue, and to the prevalent importance given to urban and industrial requirements; (*c*) inability to cope with the disparities between North and South, between industrial and agrarian Italy.

* * * * *

2. THE FIRST FASCIST LAWS

The advent of Fascism was to reverse the policies above described. The new conception of national life was to lead to the unification of the several sectional interests, to additions which previous experience showed to be necessary, and to a vision of the needs of the territory as a whole with a view to building up a sound and healthy rural life.

The new trend found expression in several laws. That of 30th December 1923, No. 3256, widened the former notion of land-reclamation, extending it to cover the regulation of water-courses both in mountain and valley areas, the provision of roads, navigable canals, irrigation works, the control of malaria. Land-reclama-

¹ See *L'Agro Romano nel primo quinquennio fascista*, MCMXXIII-MCMXXVII, Ministero dell'Economia Nazionale, Rome.

tion was thus no longer restricted to the elimination of stagnant waters, a measure experience showed to be inadequate for the prevention of malaria, but was extended to cover all the other works required for modifying agricultural and environmental conditions essential for securing the hygienic ends in view.

In 1925, remedying old errors, the Duce ordered the Ministry of Public Works "to have eyes, ears, money only for the South and the Islands." The *provveditorati alle opere* (Boards of Work)¹ were set up in the South and the Islands. The large measure of autonomy and regional jurisdiction they enjoyed enabled them to prepare complete programmes for territorial reclamation and to pay attention to needs until then ignored.

Then came the fundamentally important Act of 18th May 1924, No. 753, amended by that of 29th November, 1925, No. 2464, on land conversions of public interest, which vested in the Government the responsibility of reclaiming, on organic lines, areas which

as a result of hydraulic conditions, inadequate roads, lack of irrigation waters, or other serious reasons of a physical and social nature, are agriculturally backward although susceptible of being recon-ditioned to other uses with notable economic, technical and social results.²

This act completed former land-reclamation legislation. By providing for territories where backward conditions were not due to paludism, it emancipated from the initial error, which can be traced back to the Baccarini Act, that of considering land-reclamation in connection with the existence of swampy zones only.

The measures above referred to, not only reversed the policies previously followed, giving full recognition to rural requirements and to the need of ensuring the balanced development of the several parts of the country, but they also marked a new attitude towards the general problem which would allow of a reconsidera-

¹ For a summary description of these Boards, see p. 85.

² Art. I of the Act in question.

tion of such special problems as the *Latifundia* and the whole Southern question which had long weighed on the life of the nation.¹

The new view point is set forth in the volume already quoted, *La Politica Agraria in Italia e i recenti Provvedimenti Legislativi*, by Professor A. Serpieri, from which the following excerpts are taken.

There is another vast section of agriculture in which the machinery of private production, left to its own resources, works very imperfectly. I refer to great land conversion works and works for the protection of the soil. More especially in South Italy and the Islands there are large areas in which the land has not yet undergone those fundamental changes thanks to which, instead of being a gift of nature, it becomes a constructive work of man, and primitive, wild, desertic, malarious lands, growing poor wild crops, are adapted and rehabilitated and become fit not only for more intensive modes of agriculture, but for higher forms and standards of social life. Private enterprise cannot, unaided, carry out all

¹ Pliny's phrase "*Latifundia Italiam perdidere*," notwithstanding the differences between the *latifundia* of the Roman period and those of successive ages, itself suffices to mark the age-long gravity of this problem. *Latifundium* is a term which can in no wise be identified with the mere size of an estate or farm; in either case size is associated with the almost complete absence of all investments in the land and with the limited use of working capital; consequently the land can only be used for extensive agriculture of the least productive description, while sanitary and social conditions are deplorable. *Latifundia* are found in zones lacking in public works, they are generally under poor and discontinuous cereal crops, and used as rough grasslands for grazing livestock for which no stabling is provided, mostly sheep often passing the winter months in the lowlands and going up to the mountains during the summer heat. *Latifundia* follow one after the other, bordering on each other, thus forming a compact mass, untraversed by roads, with no water system, infested by malaria, with hardly any permanent inhabitants. They form a complex whole, the product of natural, historical, social and economic conditions. (See Giovanni Lorenzoni, "*Il Latifondio in Sicilia e le sue possibilità di trasformazione*" in *Monthly Bulletin of Agricultural Economics and Sociology*, International Institute of Agriculture, Rome, July-Sept. 1923.)

The many more or less one-sided attempts made in the past to break up the *latifundia* have almost always had negative, sometimes tragic, results. They failed because individual action could not replace collective action, which was lacking. With the new integral and corporative policies, results are evidently very different.

The "Southern question" is that of the less favourable conditions for economic and social development existing in the South and Islands as compared to other parts of the country. This problem, an old stalking horse of political parties, is closely connected with that of the *latifundia*.

the phases of these conversion works, for not only are they very extensive, but frequently their returns are only secured after long periods and they are by their nature not individual but collective in character. Indeed, under certain conditions, in mountain areas for instance, private enterprise has often been unable to protect the soil against natural forces which tend to rob and impoverish it, and in the search for higher immediate returns, it is abandoned to future sterility.

Therefore work for the protection of the soil and for its adaptation to higher forms of farming is essentially a government task, to be carried out under a co-ordinated plan of activities which may be described as integral land-reclamation.

Some of the works required are universally recognized as coming within the province of Government, such as hydro-geological supervision, the more important road-building work and the major works required for regulating and utilizing waters (land drainage, great irrigation works, other hydraulic works, reafforestation, etc.); others are looked on as in the nature of private enterprises (farm buildings, tree plantations, soil improvement, etc.), but these latter cannot, without serious loss, be disassociated from the execution of the former. Moreover, the line of demarcation between the two categories is subject to frequent revision. The problems of the *latifundia* and of land-settlement belong almost entirely to the category of works above defined, so also do the problems of reafforestation, the protection of woods and mountain lands in general, and that of restrictions on the use of forests.

One of the most important problems of agrarian policy is that of finding the best way of associating government action with private enterprise; its satisfactory solution ensures the protection, wise use, and enlargement of the nation's available territory.

After commenting on the Act on land-conversions of public interest, and more especially on the rules governing the grant of concessions provided for in the act as a means of ensuring the co-ordination of government action and private enterprise in their execution, the writer goes on to say:

"... it cannot be denied that this problem (the conversion of the *latifundia*) exists in all its impressive seriousness, and that real peace, social peace will not be secured in many parts of Italy so long as a poverty-stricken rural proletariat dwells on the edge of the *latifundia* used for grazing purposes peopled by sheep and not by men.

The measures¹ taken were mistaken because they superposed the social on the economic problem; because they saw a question of land-ownership, land-distribution, farm leases, where the prime problem was the economic one of production, the problem of seeking and applying new and more intensive systems of production, systems which can offer steady and profitable work to a denser population. They were also mistaken because they believed that bureaucracy would be able to show the way.

But neither can we accept the strictly liberal view which holds that the State should perform its tasks of ensuring public order, sanitation, and the execution of public works, and should leave all the rest to private enterprise. We cannot accept it because public works and private land-conversions are so closely interconnected that the former cannot be separated from the latter. We cannot accept it because among the causes which prevent conversions the inertia of the owners of the *latifundia* cannot be excluded; and in cases in which conversions can be carried out on economically profitable lines—with the assistance of public bodies—the social values involved are too important and too vast to allow of their being hindered by the inertia of landowners.

But under the new Act, when a land-conversion area has been marked out in a *latifundia* region, the work can be carried out, government assistance being given to the full extent required to make the conversion economically profitable to the owners, and the co-ordinated execution of the preliminary public works being ensured. It will be carried out along the lines which the physical environment and economic considerations call for, replacing the existing productive systems by others of a more profitable nature, to which, of course, the other items of rural organization will have to be adjusted, such as the size of the estate and farms, the nature of the contractual agreements, etc. It must be recognized once for all that these factors are dependent on the productive system adopted; that when this has been selected on lines complying with physical conditions and economic requirements, they are its necessary corollary; that the prosperity of the peasant himself depends in the first place, on a high rate of production, which means that production must be on lines suited to the environment, for only then will it allow of a high rate of compensation for work; that to a small freehold or perpetual leasehold entailing productive systems unsuited to the environment, and therefore giving low yields, the peasant should prefer a large estate, a big

¹ The author refers to the view of the problem taken before it was dealt with by Fascism.

farming enterprise, securing high yields and therefore allowing higher remuneration of his labour.¹

Other laws of this period were those of 1926 on irrigation, of 1927 on agrarian credit preceded by that of 1923 on agricultural land credit; and of 1927 dealing

¹ To complete the views above set forth and facilitate their correct interpretation, we quote from the same work the following excerpts which give an impartial and clear statement of the theory underlying the Fascist view of the problems affecting the size of the estate and more especially of the small peasant holding:

"The size of the estate is a matter of fundamental importance not only economically but also socially.

"The contrast between the purely economic and the prevalently social view of the question is indeed the chief cause of difference of opinion as to the action of the State in this field.

"If the size of the estate be considered from the economic standpoint, the first thing to take into consideration is the relation between its size and the size of the farm or agricultural enterprise. Large estates allow of both large and small farms, for they can either be farmed as a single enterprise, or be divided, for farming purposes, into small separate units . . . (small leaseholds, peasant holdings, etc.). On the other hand, the small estate, if below a certain area, allows of small farms only . . .

"Now, the small farm is subject, from the economic standpoint, to certain disadvantages arising from the less economic use of certain capital investments (buildings, power-engines and farm machinery, treatment of useful or noxious waters, etc.), the less profitable organization of sales and purchases, the less profitable organization of auxiliary industries (wine-making, cheese-making, etc.) greater credit difficulties, less qualified and intelligent management. If these disadvantages can be offset to some extent, more especially by co-operation, it must not be forgotten that this remedy requires a level of intellectual and moral attainments which are not always available, and that in any case it also entails costs.

"Should we conclude that the small estate, in as much as it is connected with the small farm, is to be economically condemned? Not always. In the case of small 'bourgeois' estates, it is difficult, apart from all social aspects of the question, not to come to that conclusion; not so in the case of small peasant properties, for then the disadvantages above enumerated are offset by a most powerful source of larger economic yields, found in the greater activity and zeal of the worker, who is wholly devoted to the success of the farm and to the improvement and conservation of the land. If the yield of an hour's work given by a wage-worker is equal to one, that of the small owner is equal to two or three; the marvellous care and toil which the peasant devotes to the conservation and improvement of his land are well known, and find their most remarkable expression in the mountain districts where unceasing efforts have to be made to safeguard the land against the threat of waters and where the peasant succeeds in raising crops on the almost bare rock.

Large estates, even if farmed in small units, cannot secure such results; if the small farmer is a tenant he takes no interest in conserving and improving the land, if he farms on the crop-sharing basis or some of the many other forms of co-partnership, the same results are never secured as when the peasant owner is entirely responsible for the farm."

with government contributions to the cost of certain agricultural improvements.

* * * * *

3. THE MUSSOLINI ACT

During the war there were no regional distinctions in the country. The *Fasci di combattimento*, which arose from the war, were unitarian in the full sense of the word. Thus the advent of Fascism righted the balance as regards rural values and the relative needs of the several parts of the country.

We have mentioned in the previous paragraph the changes operated by the first measures based on altered policies and a new scientific concept. But when the necessary work of enquiry, experimentation, and consideration was completed, the Duce felt that the time had come to enlarge the conception of land-reclamation to its full dimensions, by entrusting it with the political, social, and economic task it was called on to accomplish in the history of the country. On the 29th July 1928 the Council of Ministers approved the bill for integral land-reclamation. On 18th September the Grand Council declared it basic for the régime, and after passing both Houses of Parliament it was enacted as the Mussolini Act of 24th December 1928, No 3134. Since that day the new plough-share has been forged and driven deep into the antique lands which for centuries had awaited the opening of that furrow in order to be fertilized by sun and water and receive the seed.

The Mussolini Act does not lose itself in the maze of existing measures. It leaves them as they are and goes forward. It provides:

(a) a plan for financing over a period of 14 years works costing over 7,000 million lire;

(b) it calls special attention to works completing those provided for by previous legislation;

(c) Art. 13 opens the road for the further developments which studies and experience may suggest.

The Act did not attempt to hasten unduly the further

elaboration of legislation which requires time, but confirmed the existing measures with the various categories of works and the varying technical and financial arrangements provided for each. As these latter, however, were to a large extent contained in the annual Finance Act, and therefore varied with the general conditions of the budget, they hindered the preparation of a comprehensive, organic, long-dated plan. For this reason the Mussolini Act, while leaving untouched the appropriations already made and increasing those relating to contributions and subventions for the application of electric power to the farm, provides further credits for works to be executed in the period and for the amount above mentioned.

It is evident that the amount and ratio of these costs chargeable to the Treasury or to the landowners, varies with the various works. As a whole it was estimated that of the total sum, exceeding 7,000 million lire, approximately 4,300 million would be chargeable to the Treasury, and the remainder to the landowners.¹

¹ The financial plan of the Mussolini Act is based on the following estimates:

1. The following works of:

- (a) first and second category hydraulic reclamation (land drainage);
- (b) irrigation works comprised within the boundaries of hydraulic reclamation lands;
- (c) irrigation works outside said boundaries, but located in South Italy and the Islands,

all works which at that date were under the jurisdiction of the Ministry of Public Works, to be started within the five-year period 1st July 1929-30th June 1934, at a total cost of 4,800 million lire, and to be finished within the fourteen year period 1st July 1930-30th June 1944;

2. Rural aqueducts,

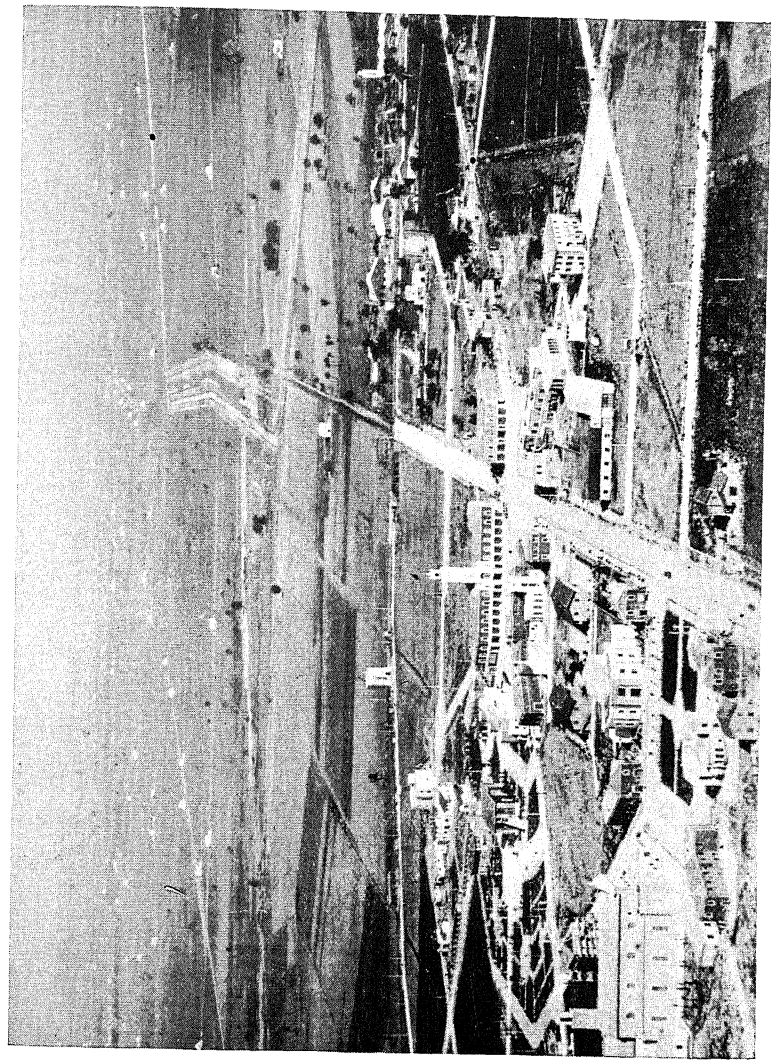
formerly coming under the jurisdiction of the Ministry of Public Works, to be executed within the seven year period 1st July 1930-30th June 1937, at a total cost of 200 million lire;

3. Villages,

formerly coming under the jurisdiction of the Ministry of Public Works, to be built within the eight years from 1st July 1930 to 30th June 1938, at a total cost of 500 million lire;

4. Irrigation works in Northern and Central Italy, formerly under the jurisdiction of the Ministry of National Economy, to be carried out within the eight years from 1st July 1930 to 30th June 1938 at a total cost of 500 million lire.

5. Roads connecting farms and the provision of drinking water supplies, formerly under the jurisdiction of the Ministry of National Economy, to be carried out within the fourteen-year period from 1st July 1930-30th June 1944, at a total cost of 1,000 million lire.



LITTORIA AND FARMS.

Courtesy of Opera Nazionale per i Combattenti.

The following table summarizes the programme of works allowed of by the appropriations made under the Mussolini Act as originally drafted, and shows the estimated annual growth of the work. It should be noted that the original plan has gradually undergone some modifications. Chapter VI, dealing with the financing of land-reclamation, describes the organization built up for carrying out the financial plan. Here we will only note that the major part of the financing is provided in the form of thirty year annuities, discounted to the parties concerned by several different institutions.

PROGRAMME OF WORKS ALLOWED OF BY THE CREDITS APPROPRIATED
UNDER THE MUSSOLINI ACT

Financial Year.	Hydraulic Reclamation and Supplementary Works ¹ ; Land Conversion Roads.	Irrigation Works in South Italy and the Islands.	Irrigation Works in Northern and Central Italy.	Villages and Farm Buildings in South Italy and the Islands.	Rural Aqueducts.	Farm Roads and Drinking Water Supplies.	Total Cost of Works.
COST IN MILLIONS OF LIRE							
1930-1.	200	50	50	50	30	50	430
1931-2.	250	50	50	50	30	75	505
1932-3.	300	50	50	50	30	75	555
1933-4.	350	50	50	50	30	75	605
1934-5.	350	50	75	75	30	75	655
1935-6.	350	50	75	75	30	75	655
1936-7.	400	—	75	75	30	75	655
1937-8.	400	—	75	75	—	75	625
1938-9.	400	—	—	—	—	75	475
1939-40	300	—	—	—	—	75	375
1940-1.	300	—	—	—	—	75	375
1941-2.	300	—	—	—	—	75	375
1942-3.	300	—	—	—	—	75	375
1943-4.	300	—	—	—	—	50	350
Total .	4,500	300	500	500	210	1,000	7,010

¹ The supplementary works may be roads, irrigation works, aqueducts, and other works for supplying drinking water comprised within hydraulic reclamation areas; and also the reconditioning of mountain lands when closely connected with hydraulic reclamation.

The Mussolini Act is the spinal column of integral land-reclamation. Whatever the subsequent technical developments of the legislative framework provided by the Act may be, the Act itself will always represent the will force of Italian integral land-reclamation, the motor-power of this immense work of far-seeing justice.

* * * * *

4. NEW RULES¹

The call to immediate action which was the very essence of the Mussolini Act, and the burning need of the works it provided for explain the eagerness with which the Act has been received by the whole country. It has been said that if all the projects presented for approval had been accepted, not 7,000 but 70,000 and perhaps 100,000 million lire would have been required. The brakes had to be put on resolutely and the need of accurate selection had to be stressed from the start. This however did not delay the work. Action indeed was rapid and constructive from the first. The existing legislative machinery had to be used and completed by the gradual addition of urgent measures as they were required, and meantime a comprehensive codified text of the legislation had to be prepared which should bring existing laws within the framework of the new rules applicable to the whole field of activity covered. This comprehensive text was provided by the "R. Decree of 13th February 1933, No. 215, containing the new rules for integral land-reclamation." The decree and the rules are reprinted on page 202 for the reader desirous of consulting details. We will here summarize the main outlines.

A. Works. The act lays down that integral land-reclamation is carried out in the public interest by means of (a) land-reclamation works, (b) land-improvement works.

¹ See A. Serpieri, *La legge sulla bonifica integrale nel terzo anno di applicazione*, Cp. II, whence are taken the excerpts printed in small type.

The former have the following characteristics:

1. They are carried out under a general plan of co-ordinated activities.

2. They present marked hygienic, demographic, social, and economic advantages.

3. They are carried out in land-reclamation circumscriptions; i.e.: on territories classified and delimited by the Government:

(a) in which exist lakes, ponds, swamps and marshes;

(b) or consisting of mountain lands in which hydro-geological and forestry conditions are unsatisfactory;

(c) or consisting of lands which, for serious physical and social reasons, are utilized for extensive farming and on which the productive régime could be radically modified if the aforesaid unsatisfactory conditions were removed.

The land-improvement works are those carried out:

(a) on behalf of one or more farms, and

(b) independently of a general land-reclamation plan.

Technically both land-reclamation and land improvement works may be of the same nature, irrigation works, for instance. The distinction drawn between them is one of public utility which, if it be not absent from land-improvements—and if it were the grants in aid from the Treasury would not be justified—is nevertheless much greater in the case of land-reclamation. The distinction is also based on the need, in the latter case, of a whole series of works which must be co-ordinated under a general plan, whereas land improvements may consist in single works, each executed independently of the others.¹ . . .

¹ "A more thorough study of the question shows that land-reclamation is characterized by a radical alteration of the productive régime. This alteration allows of replacing primitive, extensive forms of land-usage by other more intensive forms, as when, for instance, land deficient in surface drainage, fit only for growing rushes, or for rough grazing, or for raising occasionally poor cereal crops, is converted into fields under intensive, sometimes irrigated, farming, or when these forms of agriculture replace the occasional cereal crops and grazing lands characteristic of the malarious, depopulated *latifundia*. In some cases the reclamation consists in protective works for preventing the deterioration of land already placed under more or less intensive forms of usage, but threatened with a return to primitive conditions, as for instance, when the required difference of level between cultivated lowlands and the maximum level

The new act draws a distinction between the two kinds of land-reclamation areas, one being classified by law, the other by royal decree after consulting a special Committee of the Ministry of Agriculture. To the first category belong works of special importance for land-settlement purposes, to the latter all others. . . .

Obviously the new division into two categories of land-reclamation works of a public character complies with one of the fundamental principles of Fascist rural policies, and has two practical results, it makes it possible to lay down special conditions regulating the employment of immigrant labour in first category areas, and as a natural consequence of the heavier charges entailed by these conditions, larger Treasury contributions to the costs are justified.

In both cases, moreover, all the works required to ensure the purposes of land-reclamation have to be carried out, whatever their technical character may be, either by the Government if they be recognized as having a public character, or by the owners. The former are charged to the Treasury, the landowners making a contribution; the latter are charged to the landowners who receive a financial grant in aid from the Treasury.

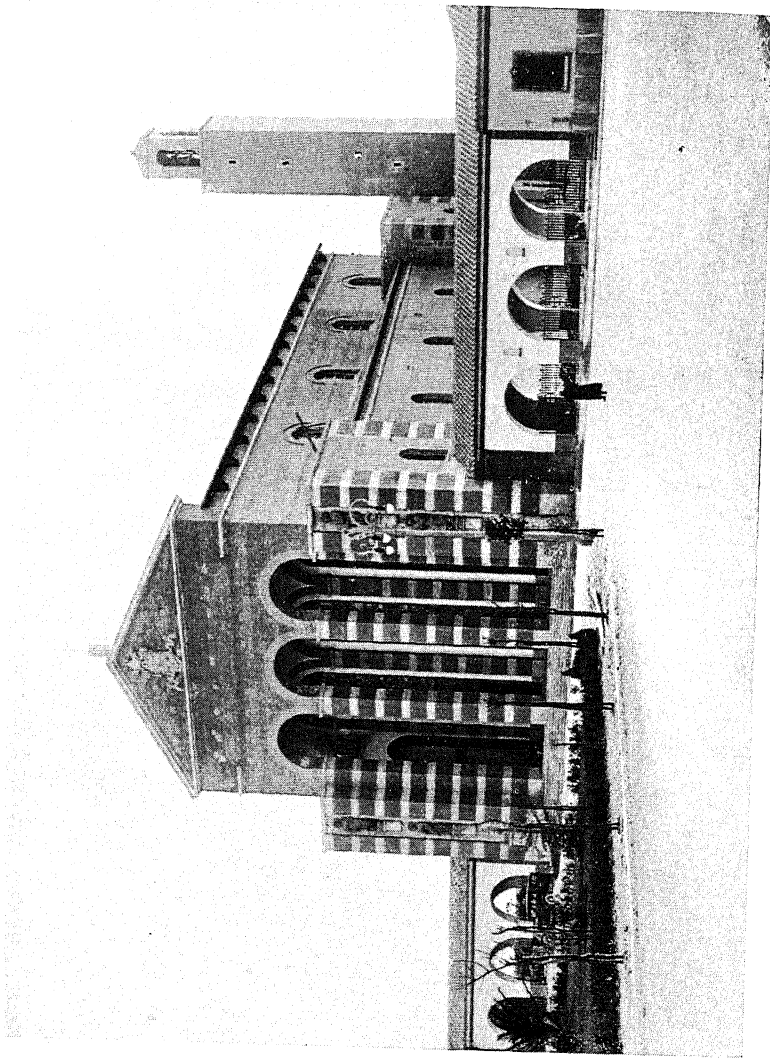
The technical character of the works can only be ascertained by studying, for each case, the general land-reclamation plan co-ordinating them in space and time; but the basis of the above legal distinction between works for which the government is responsible and those incumbent on the landowners is found in the consideration that the former are of general concern to the whole area or a notable part thereof, whereas the latter are the particular concern of each estate or group of estates. The line of demarcation cannot be a rigid one, the precedents set by previous laws still play their part; the rules regulating the execution of both kinds of work make the line a still narrower one, just as under the corporative Fascist Régime the demarcation between public and private is gradually becoming less clearly marked.

Art. 2 gives a list of the works which may be considered as of a public character. . . .

It contains for the first time reference to a work, or rather an of a river is restored, or when reconditioning works for protecting mountain-lands against torrents are undertaken.

"Land improvements, on the other hand, afford the means of improving, without radically modifying, the existing productive régime.

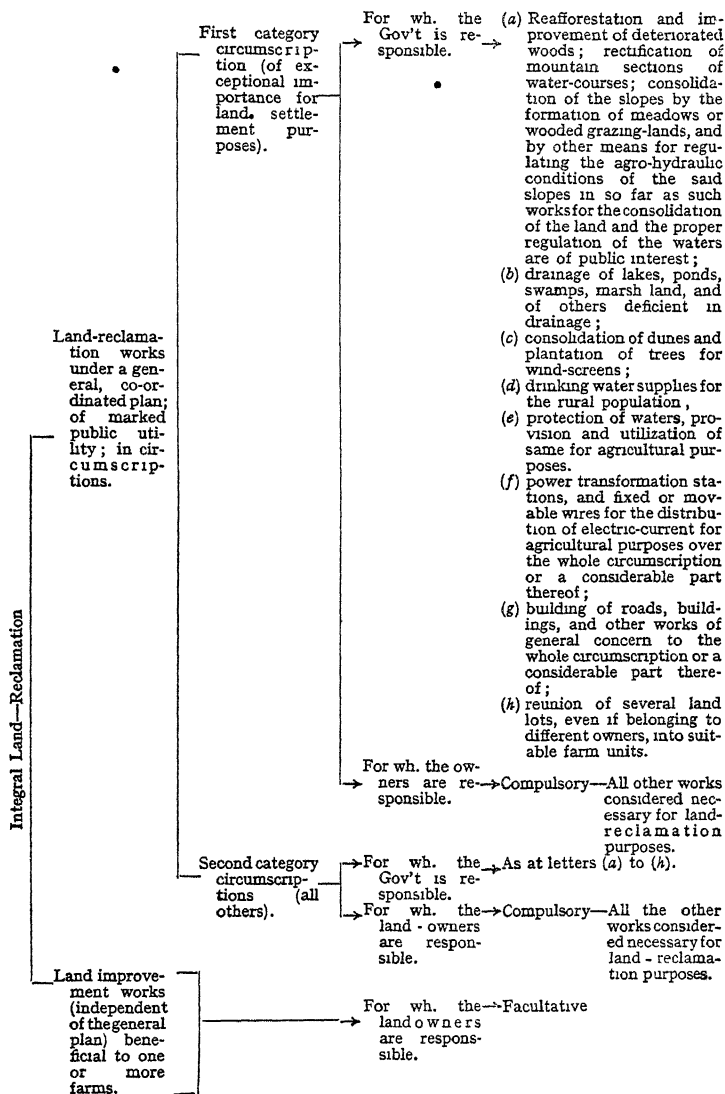
"This explains why the Government contributes much more largely to the former, in which the public interest is prevalent, than to the latter in which private interests are the more important.



LITTORIA, THE CATHEDRAL.
Courtesy of Opera Nazionale per i Combattenti.

activity, of special importance, that which consists in uniting several lots of land, even though belonging to several owners, into farm units of a suitable size.

INTEGRAL LAND-RECLAMATION WORKS



The compulsory exchanges for which provision is made, supplemented, if need be, but to the smallest extent possible, by equalizing cash payments, is the remedy provided for that fractional division and pulverization of property which has so long been deplored in certain zones as one of the most serious obstacles to agricultural progress. . . .

Among the public works which may be included in a general reclamation plan, the act makes explicit mention of power transformation stations and fixed or movable wires for the distribution within the circumscription of electric current for agricultural purposes, thus providing Government assistance so frequently requested for the solution of the problem of farm electrification.

It should also be noted that in determining land-reclamation circumscriptions, a distinction must be drawn between the boundaries of the territory on which land-reclamation works are to be carried out, and those of the territory on which contributions are levied toward the cost of government works not met in full by the Treasury, as they need not necessarily coincide.

A rule of fundamental importance for ensuring the purposes of land-reclamation is contained in Art. 4 of the new Act¹ which requires that a general reclamation plan be drawn up for each circumscription.

The table printed on page 69 makes a summary classification of integral land-reclamation works.

B. The Consortia and the Execution of the Works.²

A crucial problem for land-reclamation is that of securing the complete and co-ordinated execution of all public and private works by a plan which while avoiding the danger of supplanting private initiative by State intervention in those tasks which can be entrusted to the former, also avoids the no less grave danger that the reclamation works should stop when Government has fulfilled its task and before the private landowners have carried out their share of the work, thus frustrating the purposes to be secured.

. . . The new act solves this problem by assigning to the fullest extent possible, the whole task to one organization in which public and private activities find a meeting-point. This organization is the land-reclamation consortium.

¹ See p. 204.

² See A. Serpieri, *La legge sulla bonifica integrale nel terzo anno di applicazione* and the *La legge sulla bonifica integrale nel quarto anno di applicazione*, Chap. II.

Consortia for regulating land drainage and irrigation exist in Italy since ancient times. They arose to deal with problems connected with the use and dangers of water, which owners were not in a position to deal with individually. Their activities started before legislation had been enacted to determine rights of way for the passage of water. In a document of the territory of Bergamo, dated 1036, mention is made of co-ownership of waters for irrigation purposes. A great number of statutes of the Italian Communes, among which those of Verona (1450), Crema (1534), Milan, Mantua, etc., speak of free and compulsory consortia for reclamation purposes.¹ The Venetian Republic was pre-eminent in the organization of consortia whose efficiency has in Venetia and other regions lasted to our own day, maintaining its former high traditions.

This institution of consortia, with the experience of centuries behind it, formed for carrying out works of a character partaking both of a collective and an individual undertaking, was well fitted for enlarging its functions to meet the corporative policies of the Fascist State which, by eliminating all antithesis between the State and the citizen, entrusts the latter, as a member of the State, with functions in which public and private interests coexist. The consortium has thus taken on a new aspect, and becomes the organ through which the State vests its authority in certain citizens for the purposes of integral land-reclamation. A corporate body, part of the State, not a private association formed to look after private interest, the consortium:

provides directly for the execution of public works, and either directly or through others for the execution of private works. It is not a mere executor of public works as government concessionaire, but is the organ for carrying out the whole integral land-reclamation, both in its public and private phases . . . an organ co-operating with the Government to secure the complete character of the reclamation, assisting and guiding the landowners, but at the same time controlling, and if necessary replacing them.

¹ See R. Ciasca, *op. cit.*, *Storia delle Bonifiche del Regno di Napoli*.

The new Act deals with two distinct types of integral land-reclamation consortia.

(a) land-reclamation consortia which are public corporations;

(b) land improvement consortia which are private corporations.

The former, formed by the owners of real-estate benefiting by the reclamation works, are, as already stated, public corporations; indeed the public ends sought by land-reclamation, are of such importance that the works required are either public works, or private works of a compulsory character.

The land-reclamation consortia attend to the execution, upkeep, and management of the land-reclamation works or else to their upkeep and management only.

Land-reclamation consortia can also provide for the allocation, collection, and payment of the quotas for which the landowners are liable if the reclamation works have been undertaken by a body other than the consortium itself; in such cases it is described as a "quota collecting consortium."

Land-improvement consortia are those formed for the execution, upkeep and management of land improvements.

The consortia are set up by royal decree, issued on the motion of the Minister of Agriculture and Forests, when the proposal has been approved by owners holding the major portion of the land included in the circumscription boundaries. The law defines the cases in which this majority may be considered as acquired.¹ Exceptionally, consortia may be set up by the Ministry, independently of any action on the part of the landowners, should the Ministry of Agriculture and Forests, after ascertaining the absence of an initiative on their part, deem it necessary and urgent to provide for the reclamation of a certain land circumscription by means of a consortium.

The activities of the consortia are carried on within the limits set by the Act, and under their own articles of

¹ See Art. 55, p. 222.

association, as voted by their general meetings and approved by the Ministry of Agriculture and Forests.

To meet the purposes for which they are formed, the consortia are empowered to levy on the associated land-owners dues collectable under the rules valid for the collection of direct taxes. The contributions of the land-reclamation consortia are inscribed as real charges on the land, and can be collected under the rules and enjoy the privileges granted the land-tax.

As a rule the consortia distribute the normal costs of management and those incurred for purposes conferring uniform benefits on the whole circumscription on a permanent basis per unit of area, whereas the costs incurred for purposes conferring benefits of varying degree on the several categories of lands are allocated according to the classification and rates agreed on by the consortium.¹

¹ Art. 11 of the Act provides that the quotas charged for reclamation works for which the Government is responsible are finally allocated according to the benefits secured thereby, and provisionally on the basis of approximate indices of these benefits. The final allocation and the equalization settlements if any are made when the completion of the last lot of the land-reclamation plan has been ascertained. The rules by which the quotas are allocated are laid down in the articles of association or by subsequent decisions which must be approved by the Ministry of Agriculture and Forests. In the absence of consortia, they are fixed by the Ministry itself. With a view to reducing equalization settlements to a minimum care is taken not to delay making the final allocation and from the time the work starts rules are adopted which are likely to ensure the allocation most closely corresponding to the advantages conferred on the several estates.

See on this point, p. 123 of Chap. VI. Also *Circolare dell'Associazione Nazionale fra i Consorzi di Bonifica*, 19 Novembre, 1930—*Classificazione dei Terreni per i contributi di bonifica*, in "*La legge sulla Bonifica Integrale nel secondo anno di applicazione*."

Subsequently, and in view of the great importance of securing an equitable allocation of the consortial charges as among the landowners, the Association of Consortia entrusted the study of this matter to a special technical commission. The result of the works of this Commission afforded the basis for drafting the "Rules for the allocation of consortial charges," which classify the several works in different economic categories and lay down mathematical formulae for the allocation of the charges in accordance therewith. These rules are set forth in Circular No. 92, 16th January 1935, issued by the Association of Land-Reclamation Consortia under the title "Rules for the Allocation of the Consortial Contributions in Land-Reclamation Circumscriptions," quoted in the volume *La legge sulla Bonifica Integrale nel quinto anno di applicazione*.

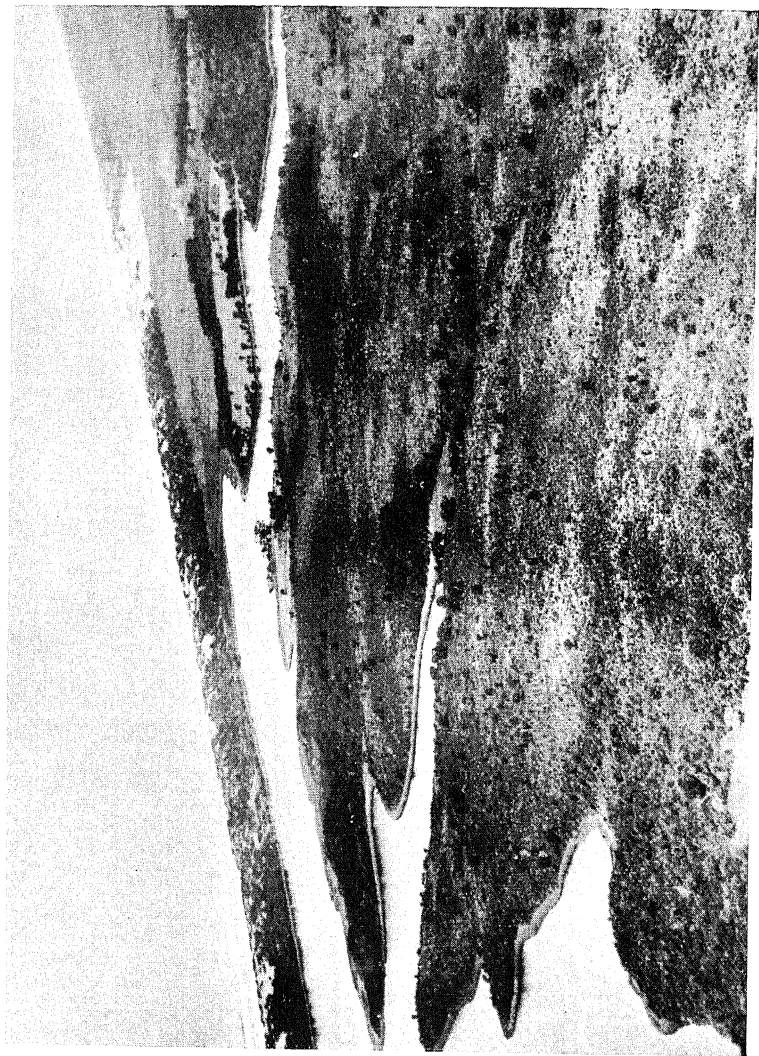
The very nature of the consortia and the fundamental importance of the rights and duties vested in them entail the intervention of Government or of bodies delegated thereby. These interventions apply to both types of consortia, but more especially to those dealing with land-reclamation work.

In both cases the Government intervenes through the Ministry of Agriculture and Forests, (*a*) approving, and if need be modifying, the articles of association; (*b*) reserving the right to group together offices, amalgamate or suppress consortia, and modify their territorial boundaries; (*c*) delegating its right of intervention to the National Association of Land-Reclamation Consortia. It exercises through the Ministry of Agriculture and Forests and the Prefects a right of supervision and intervention for ensuring the satisfactory working and regular execution of the tasks assigned to the consortia (dissolution of boards of directors, etc.).

In the case of land-reclamation consortia only, the Minister of Agriculture and Forests may himself appoint or replace the president of consortium; he can appoint a delegate to represent him on the board of directors; he can postpone, while the works, are being carried out, the re-election of the officers of the consortium; the President of the National Association of Land-Reclamation Consortia examines and approves decisions concerning loans and administrative regulations, the Prefect examines the legality of the several deeds mentioned in the Act¹ and receives each fortnight a copy of any further decisions taken by the Consortia. In some cases the visé approving the deeds is given by the President of the National Association of Land-Reclamation Consortia. (The activities of this Association, which assists and supervises the Consortia, are described in Part 3 of Chap. V.

(The part played by the consortia in carrying out land-reclamation works, beginning with the study of the general plan, is set forth in Chap. V, par. 2.)

¹ See Art. 63, p. 224.



AUGUST 1933. THE ZONE WHERE SABAUDIA HAS BEEN BUILT.
Courtesy of Opera Nazionale per i Combattenti.

We give below the basic principles in accordance with which the rules laid down in the R. Decree of 13th February 1933, No. 215, seek to secure, in so far as possible, the execution by the landowners of the reclamation works for which they are responsible.¹

The ultimate penalty incurred by owners who fail to fulfil this obligation is that the work is carried out by the Consortium at their expense, or else they are expropriated in favour of the said Consortium, if it so request, or, failing this, in favour of others who undertake to carry out the works

as set forth under par. 2 of the following chapter.

But these necessary penalties—for there can be no obligations without penalties—would prove ineffective in practice if they were not reserved to those exceptional cases in which the landowners obstinately refuse to perform the duties assigned them by the Fascist State when it declared property to be a social function. What is really needed is to secure a system which will enable willing landowners and they are the great majority—to fulfil their duties in this matter.

The procedure introduced by the new Act is inspired by the following principles:

(a) In so far as possible, the profitable character of the works the landowner is required to carry out is ensured by providing that the share of costs for public and private reclamation works charged to him be adequately compensated by the increased income secured from the reclaimed estates;

(b) The landowner is assisted in the discharge of his obligations and his task is facilitated;

(c) Failure to fulfil them entails a loss on the defaultants.

This loss consists in the quota charged to the estate corresponding to the share of costs for the public works charged to the landowner's account. If the landowner fails to carry out the necessary works for which he is responsible, and therefore fails to change his agricultural methods so as to raise the income derived from the estate, the liability represented by the quota is offset by no compensating asset. Undoubtedly this circumstance encourages him to effect the required agricultural conversions.

In carrying out the works for which he is responsible the land-

¹ See A. Serpieri, *op cit.*, *La legge sulla bonifica integrale nel terzo anno di applicazione*, p. 79.

owner is assisted by the consortium, which affords him technical assistance by planning and carrying out the works on the owner's behalf should he so desire; and financial assistance, by procuring him the credit he may need.

Finally, the landowner has the assurance that the reclamation will be to his advantage, and this is the natural corollary to the obligation placed on him, and not only is this guarantee afforded by the financial régime under which the works are carried out, of which more further on, but also by the fact that the general plan for the reclamation is usually drawn up by the consortium itself, and the works required of the landowner are not those ordered by a government office, but those which he himself decides on, the Government limiting its action to assuring itself that they are in conformity with the general reclamation plan.

In addition to the above underlying principles a bill ¹ has been introduced in Parliament containing some additions to the rules now in force. The chief purpose is to ensure the integral character of land-reclamation in land-conversion circumscriptions, by making sure that the works the owners are required to carry out shall follow without delay the execution of those for which the Government is responsible, so as to give effect to those agricultural changes which are the aim and purpose of reclamation-works. The bill is the result of experience acquired with difficulties which it is intended to eliminate, and for which the following solutions are proposed:

(a) One case in point is that involved in the execution of works which although they have to be carried out by the owners, are of collective interest (a road-system connecting the farms, or minor drainage works). Here disagreement among the owners is enough to frustrate the good intentions of those capable and willing to carry out the work. In such cases the bill assigns to the consortium the task of planning and executing the said works, extending to them the rules now in force for public works carried out under concession by the consortium as regards the allotment of costs between the

¹ Chamber of Deputies, Bill No. 248: Rules for ensuring the integral character of land-reclamation and for the organization of consortia, introduced 12th Nov. 1934.

landowners, the surety for the payment of their quotas, and the mode of collection.

(b) A yet more frequent case taken into special consideration by the bill is that in which a landowner is financially unable to carry out the works for which he is responsible. This indeed often happens when owners have no other capital than their lands. To meet this difficulty the bill provides that when the Ministry has fixed the time within which the owner is required to carry out reclamation works affecting his estate, the consortium must see that the obligation is fulfilled. To this end when, in the opinion of the consortium, the slowness of the measures taken by the owner or the territorial discontinuity of the work to which this slowness gives rise are likely to jeopardize the purpose of reclamation, the consortium itself steps in and carries out the work instead of and on behalf of the owner.

In such cases, when owners are not in a position to provide the requisite financial resources, the consortium may ask that the lands be expropriated, even before the expiration of the period within which the owners are required to complete the works.

When the property has changed hands, either by agreement or by expropriation, prior to (as under the new bill), or on the expiration of the period fixed (as provided by the rules now in force) provisions are made enabling the consortium to carry out the agricultural changes without risk being incurred by those owners belonging to the consortium who have discharged their responsibilities. The accounts referring to the agricultural conversion of the lands thus acquired are kept separately by the consortium, which secures the necessary capital from land-credit institutes or by issuing bonds guaranteed by the Government under a special system of surety. When the work is completed and the converted lands are made over to tenants or new owners, this special account is closed, or it may be wound up sooner if a purchaser can be found who will undertake to complete the work. The assets or liabilities

of the special account, which must not exceed the limits prescribed by the Government, and which it supervises, are paid into or are charged up to the credits written into the budget for subventions to land-improvement works.

Should the lands reclaimed by the consortium be ceded to small holders the payment of the price agreed on may be prolonged by a credit operation under which the small owner pays off his debt by instalments. In such cases a system has been worked out with the help of the National Insurance Institute to cover the risk of default on the payment of one or more of the annual instalments.

The bill also contains amendments to the rules for the formation of the Boards of Directors of the Consortia, and for the organization of the National Association of Land-Reclamation Consortia, while other matters of detail are also dealt with.

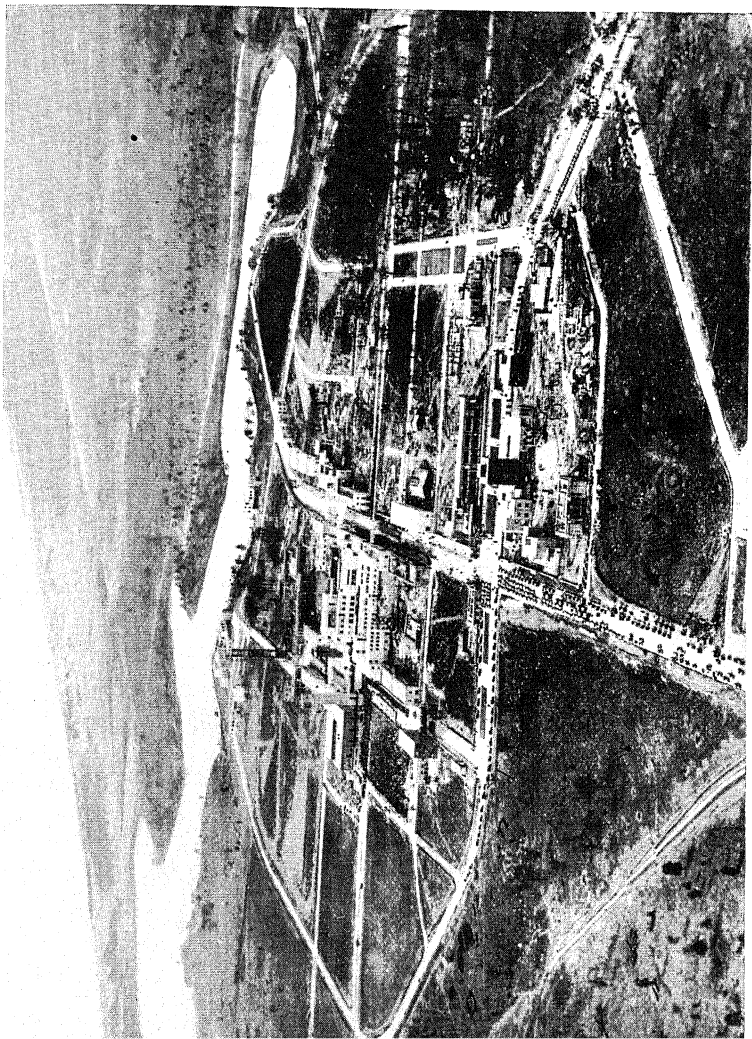
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C. The Financial Régime.¹

The financial régime under which land-reclamation works are carried out is summarized in the following table showing, for the several categories of public works, the maximum quota of the cost for which the Government is responsible, and the maximum grants in aid made by the Treasury to the landowners towards the execution of those works for which they are responsible.

The cost of some of the works for which the Government is responsible is met in full by the Treasury in view of their special character (reafforestation, replanting deteriorated woods, the consolidation and hydro-agrarian reconditioning of slopes and banks, and, in some districts, the regulation of lowland water-courses); not more than 60 per cent of the cost of power-transformation boxes and fixed and movable lines for the transmission of electric power for farm uses of the whole or a large part of the circumscription is met by the Treasury; for all

¹ See *op. cit.* *La Legge sulla bonifica integrale nel terzo anno di applicazione*, Chap. II; *ibid.*, *nel quarto anno*, Chap. II.



15 APRIL 1934. SABAUDIA ON THE DAY OF INAUGURATION.
Courtesy of Opera Nazionale per i Combattenti.

MAXIMA TREASURY CONTRIBUTIONS TO THE COST OF INTEGRAL LAND-RECLAMATION WORKS

Reclamation works		Land improvement works	
First category circumscriptions	For which Government is responsible	Second category circumscriptions	For which Government is responsible
	Works foreseen under letter (a) of previous table and the regulation of low-land water-courses in southern and assimilated zones Power transformation boxes and fixed or movable power transmission lines for farm use of whole or large part of circumscription All others: southern or assimilated zones		Other zones Treasury grant in aid as in case of land improvement works Letter (a) works and regulation of low-land water courses in southern and assimilated zones Power transformation boxes and fixed or movable lines for power transmission for farm use of whole or large part of circumscription All others: southern or assimilated zones
Land improvement works	Usually $\frac{1}{3}$ of cost but may be increased to 38% for mountain grazing lands or works in South or assimilable zones	Treasury grant	Cost met wholly by the Treasury
	Rural aqueducts 75% Electric stations and lines 45% Electric machinery 25% Machinery for breaking up fallow-land 25%		60% met by the Treasury
Land improvement works	For which owners are responsible	Treasury grant	92% met by the Treasury
	For which owners are responsible		84% met by the Treasury
Land improvement works	For which owners are responsible	Treasury grant	Cost met wholly by the Treasury
	For which owners are responsible		60% met by the Treasury
Land improvement works	For which owners are responsible	Treasury grant	87.50% met by the Treasury
	For which owners are responsible		75% met by the Treasury

other works the quota may rise in certain regions to 75 per cent of the cost, and to 87.50 per cent in the southern and assimilable regions; in 1st category circumscriptions the quota charged to the Treasury may rise respectively to 84 per cent and 92 per cent.

In the case of reclamation works for which the owners are responsible, the Ministry of Agriculture and Forests when approving the general reclamation plan estimates which of them should be subsidized and to what extent. The grant, made either in the form of a capital sum or of credit on favoured terms, is usually the same as that allowed for land-improvements, generally amounting to one third of the cost, though it may be increased to 38 per cent in the case of mountain grazing lands or when the subsidized works are carried out in the southern or assimilated regions.

The Treasury contribution to the cost of building rural aqueducts may rise to 75 per cent. The Treasury contributes 45 per cent to the cost of erecting power-transformation boxes and laying fixed or movable power-transmission lines for farm use, and 25 per cent for the purchase of machinery for utilizing the said power and machinery for breaking-up fallow lands. In view, however, of the estimated returns obtainable from such land improvements, the Treasury grant in aid may be reduced to 10 per cent of the cost.

The new Act provides that the grant shall always be made in the form of a sum representing a fixed percentage of costs.

Landowners availing themselves of credit facilities receive assistance from the State for an amount equal to the capital grant assignable under the aforementioned percentages. Should this represent a larger sum than the capitalized Treasury contribution to interest charges, the landowner can obtain the difference in the form of a grant; should the reverse be the case the contribution to interest charges will be reduced to an amount equivalent to the grant assignable.

Thus a landowner may have recourse to credit only when he requires it; and whether he have recourse to it or not the Treasury contribution to the improvement is the same.

Land-improvement works entitled to grants from the Ministry of Agriculture and Forests, or assisted by loans entitled to government contributions towards interest charges, are the following:

Land-drainage and hydro-agrarian regulation works; works for seeking, providing, and utilizing waters for agricultural and drinking purposes; the building and reconditioning of farm roads and roads interconnecting farms and of cableways replacing them; the erection and reconditioning of rural buildings or villages; the breaking-up of fallow lands by machinery or explosives; works needed for transforming thermal into electric power for working pumping stations; the improvement of mountain grazing lands; plantations and other improvements extensible to more than one estate not included in the general reclamation plan.

As stated, the following works are also eligible for grants: (a) power-transformation boxes and fixed or movable lines for the transmission of electric current for farm use and electrical machinery run by the said power; (b) machinery for breaking-up fallow lands.¹

The financing of public and private land-reclamation works is dealt with by the new law as a whole, so as to ascertain the economic advantages conferred on the owners and make sure that their total outlay will be adequately compensated by the higher income they will secure from the land. This indeed is the necessary corollary to the compulsory character of the work.

We have said "adequately," but not "excessively" compensated, i.e. not in a degree which would unduly enrich the owner at the expense of the National budget. Therefore the new act provides that if the economic results of the reclamation promise to be undoubtedly favourable, the quota of costs charged to the owner may be raised, but only to an extent which does not exclude the advantageous nature of the transaction.

Judgment on the economic advisability of the work must be given, as far as possible, before the reclamation is begun. This is, indeed, an essential part of the general reclamation plan, and one

¹ Grants for the purchase of machinery and other movable property can only be made if the applicant undertakes not to use them for purposes other than those agreed on until a period fixed by the Ministry, and affords adequate security.

which has not always been taken into due consideration in the past. Therefore, when the preliminary study of the plan is made, not only must the share of the cost of public works chargeable to the Treasury be known, but also the extent of the Treasury grants in aid to private works. This is explicitly provided for by the Act, which subordinates the reclamation obligation placed on the landowners to the concession of these grants.

The system is therefore a very equitable one, granting the owners all they can justly claim in view of the Fascist attitude towards private property.

Special provisions of the Act ensure cautious, well-considered preliminary study of the general plan. Such are the grant of rewards to farms experimenting, under the control of the Government, new methods of farming in land-reclamation circumscriptions, the right of the Ministry to make provision, either directly or by the grant of concessions (on the same lines practised in the case of the works) for studies and experimental research needed for preparing a general land-reclamation plan and projects. This measure, which enables the consortium to draw up its plans with all necessary caution while avoiding excessive outlay on its part, is a temporary measure valid for a limited number of years.

Finally, attention should be called to Part IV of the Act¹ which deals exclusively with measures for controlling the anophelous mosquito. It should be added that increases in income obtained from reclaimed lands are exempt from the land-tax for a period of twenty years, and that other fiscal exemptions are granted.

¹ See p. 220.

CHAPTER V

INTEGRAL LAND-RECLAMATION. EXECUTIVE ORGANS AND PROCEDURE

I. THE UNDER-SECRETARIAT FOR INTEGRAL LAND-RECLAMATION AND ITS EXECUTIVE ORGANS

THE administrative and technical services relating to integral land-reclamation were, until 1929, divided between two different Ministries, that of Public Works which attended to engineering works, and that of National Economy, covering the administration of agriculture and forests, which attended to the other public works (re-afforestation, reconditioning of lands) and encouraged the execution of private works and those for agrarian conversions under the reclamation plans, by the grant of government help in the form of credit on favourable terms and subsidies.

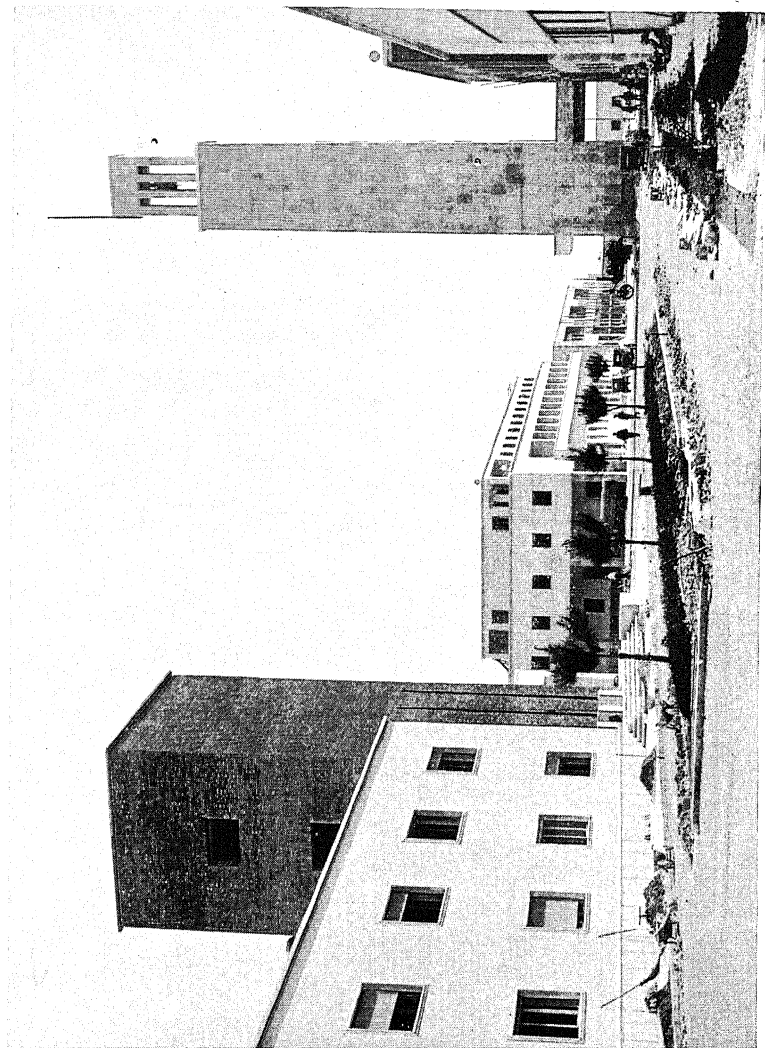
The division of jurisdiction between the two Ministries mentioned was made on such defective lines that some works of great importance, such, for instance, as irrigation, were handled by the Ministry of Public Works in some parts of Italy and by the Ministry of National Economy in others.

In both Ministries administrative duties were discharged by "General Directorates," and were generally divided between them on the basis of the nature of the works. Engineering matters were dealt with by the Board of Civil Engineers dependent on the Ministry of Public Works, but at the service of the Ministry of National Economy in case of need. Matters relating to forestry were dealt with by the National Forestry Militia, dependent on the Ministry of National Economy. No specific government department existed

for attending to agrarian matters, which were dealt with by a small number of experts in the service of the Ministry of National Economy, entrusted with the application of the special legislation enacted for the Roman Ager. Therefore when need arose the Ministry had recourse to the staff employed by the Travelling Chairs of Agriculture (*Cattedre Ambulanti di Agricoltura*) an organization formed mainly for imparting technical training and for educational purposes, and not directly dependent on the Government.¹

It should also be remembered that for some years past the Ministry of Public Works had, in some of the more backward parts of the country, set up special institutes known as the *Provveditorati alle Opere Pubbliche*, similar in character to a more ancient institution formerly existing in Venetia and known as the *Magistrato delle Acque* (Water Board). Substantially, these were organs of the Ministry for securing administrative and technical decentralization. They were directed by a *Provveditore* (or president of the Water Board) assisted by a technical-

¹ The Travelling Chairs of Agriculture (*Cattedre Ambulanti di Agricoltura*) are independent associations placed under the supervision of the Ministry of Agriculture and Forests. Each service has its central offices in the chief town of the province and its circumscription extends to the whole province. On each of the Travelling Chairs the Government, the Province, and the Provincial Council of Corporative Economy are represented. The duties discharged by them are those of spreading technical training among farmers, encouraging the progress of all branches of farming, and any other agricultural tasks which may be assigned them by the Government or by the Provincial Council of Corporative Economy. The technical staff of each *Cattedre* consists of the Director, heads of sections, and their assistants, all graduates of agricultural colleges, having under them the expert and administrative staff. In view of the complex character of Italian farming, it is essential for the proper working of the *Cattedre* that their directors should have an extensive and high class scientific culture, coupled to practical common sense, prudence, and a knowledge of the details of as many different branches of agriculture as are carried on in the different regions of Italy. All acquainted with the life of the Italian farmer will be able to recall some of these men who give such fine service in the Travelling Chairs of Agriculture, indefatigable as teachers, keenly interested in natural sciences and in economics, and in many cases also deeply versed in historical, philosophical, and social questions. A legislative measure is now under consideration which would transform these Travelling Chairs into Provincial Inspectors of Agriculture, decentralized organs of the Ministry of Agriculture and Forests.



SABAUDIA. "PIAZZA DELLA RIVOLUZIONE."
Courtesy of Opera Nazionale per i Combattenti.

administrative committee, on which sat the representatives not only of the Ministry of Public Works, but also of other bodies concerned in the execution of the several works.¹

The organization we have just described was, it need hardly be said, in marked contrast with the principle of the territorial unity (circumscription) at the basis of the present conception of integral land-reclamation. If by reclamation we are to understand the whole body of works and activities required to ensure the introduction and perpetuation of intensive systems of production on a given territory, then it is inconceivable that the said works and activities be split up between different administrations and bodies, unco-ordinated and disconnected.

The Mussolini integral land-reclamation Act, came into force on 1st July 1929. Soon afterwards, on 12th September, part of the services of the Ministry of National Economy were transferred to the Ministry of Corporations, while the Ministry of National Economy was replaced by a Ministry of Agriculture and Forests. Under the jurisdiction of this latter were placed all the services connected with integral land-reclamation, at the head of which a special Under-Secretary of State for Land-Reclamation was placed to ensure unity of command for the great work undertaken on the initiative of the Duce.

The administrative services connected with land-reclamation have been unified under the orders of the Under Secretary and are discharged by a General Directorate consisting of six divisions. In accordance with the present conception of land-reclamation, which deals not with categories of works to be executed but with territories to be reclaimed, each division is qualified to deal with a definite territorial circumscription.

¹ Besides the Water Board for the Venetian region, *Provveditorati* were set up in Sardinia, Sicily, Calabria, Apulia, Lucania, Campania, Abruzzi. Later on the Inspectorship for the Tuscan Maremma was set up on similar lines. All these bodies are included under the common designation of decentralized institutes for public works, (see p. 58).

In the case of the technical services, it was not found practicable to bring under one organ such different matters as engineering, forestry, and agricultural management. The Under-Secretariat therefore avails itself for these purposes of the two existing organizations, the Board of Civil Engineers, and the National Forestry Militia, to which a third has been added, that of Agrarian Inspectorships of which there are fourteen for a like number of districts.

In this connection it should be remembered that public works for which Government is responsible are rarely carried out by its direct action. This is done in a few cases of engineering works carried out by the Board of Civil Engineers, or forestry works carried out by the National Forestry Militia. Apart from such cases, when the works are of a public character but carried out by non-government agencies (generally by the land-reclamation consortia) to which Treasury grants are made, or by private persons, government action in the technical field is limited to examining and approving the plans and projects, and inspecting the progress of the work. These inspections, and the examination of the plan of works for which the owners are responsible, are entrusted either to functionaries of the Board of Civil Engineers, or of the Forestry Militia, or of the Agricultural Inspectorships, as the case may be. The more complex plans and projects for public works are examined by joint boards on which engineering, forestry, and agriculture are represented by experts.

Of these joint boards, the central one is the Superior Council of Public Works, especially its second section, a body already in existence but modified to meet the new tasks entrusted to it by the addition of agricultural and forestry experts to its membership. For each province there is a committee on which sit a civil engineer, an officer of the Forestry Militia, and the director of the travelling chairs of agriculture, and in districts where the decentralized Institutes for Public Works exist, their boards, modified in their composition by the participation

of the Agricultural Inspector for the district, discharge these duties.

The technical examination of the plans and projects is distributed between these boards in accordance with a fixed procedure, taking into due consideration the nature of the said plans.

A special land-reclamation committee has also been set up to advise the Under Secretary on the classification of land-reclamation circumscriptions, and in case of need, on the expropriation of the lands to be reclaimed.

With the help of these administrative and technical organs the Under-Secretariat presides over integral land-reclamation.¹ It can avail itself of the services of two public corporations, presided over by the Under-Secretary for Land-Reclamation himself, i.e. the National Association of Land-Reclamation Consortia² and the National Secretariat for Mountain Lands:³ and it has the co-operation of two other organs which in view of their prevalently political duties are placed directly under the Head of the Government, but whose activities are co-ordinated with those of the Under-Secretariat, i.e. the National Foundation for Ex-Service men (*Opera Nazionale dei Combattenti*)⁴, and the Commissariat for Internal Migrations and Land Settlement.⁵

Finally, it should be noted that as public health services come under the jurisdiction of the Ministry of the Interior (General Directorate of Health), the Under-Secretariat acts in close co-operation with that Ministry in all matters connected with the control of malaria.

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2. PROCEDURE FOLLOWED IN CARRYING OUT RECLAMATION WORKS

In describing the procedure followed we must first of all refer to the grouping of the works, shown in the table

¹ The Under-Secretariat, which is a section of the Ministry of Agriculture, also avails itself, for consultations on administrative and legal questions, of the specific organs at the service of all the Ministries, i.e. the Council of State and the State Legal Office.

² See p. 101.

³ See p. 106.

⁴ See p. 96.

⁵ See p. 111.

printed on page 69 beginning with circumscription reclamation works, and passing on to land-improvement works. The above distinction is fundamental, in as much as the former are either government works or works required of the owners, while the latter are private and optional. This distinction recalls an enquiry always made by foreign students of the system: "Who takes the initiative in favour of integral land-reclamation works?" An enquiry followed by these others: "In whose possession do the reclaimed lands remain?" "What happens if the landowner refuses to do what is required of him?" and so forth.

In accordance with the above classification, the initiative in the case of optional works lies with the landowners, but in the case of circumscription reclamation works it is taken by the Government. After consulting the special Committee on integral land-reclamation, above referred to, the Ministry of Agriculture and Forests, acting jointly with the Ministries of Finance and of Public Works, proposes the classification of the first and second category circumscriptions.^{1 2}

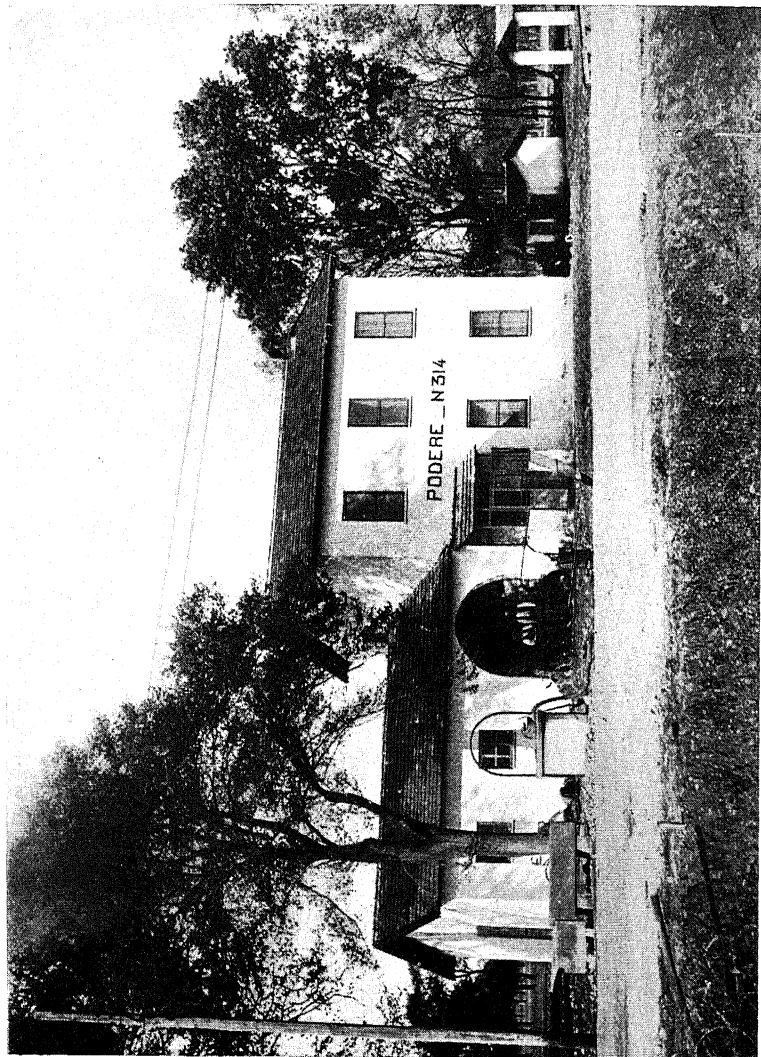
The initiative of the Ministry of Agriculture and Forests may either be taken spontaneously, or at the request of those bodies or persons who, as we shall see further on, are entitled under the act to obtain concessions for the execution of government works.

A general reclamation plan is drawn up for each circumscription, which must set forth the general scheme of the works for which the Government is responsible, and the main lines proposed for the subsequent agricultural conversion works, in so far as they are required for securing land-reclamation purposes; it must also give an estimate of the economic and other results which it is expected will be secured.

It is very important to show clearly what these lines

¹ The proposal for classification in the first category is made after consulting the Commissariate for internal migrations and land settlement.

² The boundaries of circumscriptions subject to land-reclamation obligations and of the lands on which contributions are levied toward the cost of works for which the Government is responsible (the two do not always coincide) are fixed by decree of the Ministry of Agriculture and Forests.



TYPICAL FARMHOUSE IN THE PONTINE AGER.
Courtesy of Opera Nazionale per i Combattenti.

are, as they are connected with the political and social purposes of land-reclamation. We therefore quote the following from Circular, No. 26, of 20th May 1933, XII, issued by the Under-Secretary of State for Land-Reclamation.^{1 2}

¹ The circular quoted is reprinted in the Appendix to A. Serpieri's book *La legge sulla bonifica integrale nel quarto anno di applicazione*.

² This matter is dealt with in the address on agricultural conversion policies delivered by Prof. A. Serpieri at the Second Gathering of Agricultural Experts of South Italy and the Islands, in May 1933, reprinted in *La legge sulla bonifica integrale nel quarto anno di applicazione*.

For concrete instances of the policies in question see p. 146, the rules laid down for the agricultural conversion of part of the Pontine Ager. The following rules have been laid down for part of the Lower Volturno and for the Apulian tableland.

The united Consortia of Campania have suggested land-reclamation policies for a portion of the territory of the Lower Volturno which have been approved; they can be summed up in their main lines as follows:

1. The ultimate purpose of agricultural conversions is that of bringing the entire area of the circumscription under rotation crops, grown on farm units of a size not exceeding 30 hectares, each able to afford a permanent home to a family of peasant settlers, the minimum density to be 0.17 working units and 0.3 metric tons of livestock (live weight) on each hectare. Exceptionally the Agricultural Inspector of Caserta may authorize the formation of larger farms, but in no case may they exceed 100 hectares.

2. These changes may be carried out gradually, but the whole plan must be completed within a maximum period of six years, so that at least one-sixth of the work is carried out each year.

3. The farming of livestock permanently in the open is to be suppressed within a period of two years and within a maximum period of six years permanent stabling facilities must be provided for all livestock.

4. Within a period of two years measures must also be taken for eliminating on the whole area all stagnant waters which may harbour anophelous mosquitoes.

5. Tree borders, improved and properly cared for, should be maintained wherever they already exist and trees are to be planted along the roadsides and on the borders of the several farms.

The general Consortium of Capitanata (the Apulian tableland) for reclaiming a circumscription covering an area of 400,000 hectares, has adopted the following policies for agricultural conversions in the specific zones in which the work is first to be carried out:

- (1) All the lands must be farmed under rotation crops, permanent grasslands reserved for livestock not to exceed a ratio of 8 per cent of the total area. An exception to this rule is made for those lands which it is desirable, for physical or other reasons of collective interest, to keep under permanent grass, duly improved.

- (2) On the lands above referred to all works required for eliminating the danger of malaria must be carried out.

- (3) Not less than a given minimum number of peasant families must be permanently employed on the land. A suitable dwelling of not less than two large rooms must be provided for each family, without any specific charge

It should first of all be noted that by its intervention in private land-reclamation works, the Government does not purpose substituting its wishes and judgment for that of the owners; it only desires to make sure that the latter, while acting in their own interests, which they alone can appraise, shall at the same time act within the limits and in conformity with the rules recognized as necessary for securing the public purposes of land-reclamation.

The fundamental lines followed in carrying out agricultural conversion works which the act has in view, should therefore consist not so much in defining new farming systems to replace those now in use, even if only laid down in their main outlines, as in laying down a series of obligations and rules to which the landowner must conform, obligations and rules dictated by the public purposes of the reclamation works.

In this connection it should be considered that Art. 1 lays down as a condition for the classification of a land-reclamation circumscription, the possibility of securing "notable hygienic, demographic, economic, and social advantages." It is the attainment of these notable advantages which must be secured.

Hence it follows that the fundamental lines must in the first place provide for the complete hygienic rehabilitation of the lands, excluding therefore those forms of agriculture incompatible with that purpose.

Thus in malarious territories, the rule is to introduce—maybe gradually if economic considerations make this desirable—a continuous rotation of crops on lands which have been scientifically organized from the hydro-agrarian viewpoint, to the exclusion of those forms of untilled pasturage and unstabled cattle which necessarily entail the presence of malaria breeding ponds.

being made for same, along with not less than 5 ares for use as a market garden and poultry run, etc. The minimum number of peasant families to be employed on the land is fixed on the basis of one working unit for each 10 hectares of land under continuous rotation, or for each 20 hectares of permanent grass land.

(4) Each family employed on the land, as above, must receive a total annual compensation sufficient for normal living needs and in keeping with the productive possibilities of the land and the labour yield. Said compensation must include, besides the use of the dwelling house and market garden, the use of an allotment for the exclusive benefit of the family, or else a share of the products of the farm, in a measure representing in either case at least one-fourth of the total annual compensation.

(5) Not less than 125 kg (live weight) of livestock, both large and small, must be kept on each hectare of land under rotation crops. Exceptions to this rule may be allowed for reasons connected with the nature of land.

Methods of building, etc., necessary for protection against malaria may also be made compulsory.

From the demographic and economic standpoint the Government attaches pre-eminent importance to the increase of gross production and of agricultural work per unit of area. This may suggest the exclusion of forms of agriculture employing less than a certain minimum of manual labour, and this necessarily entails recourse to productive systems under which the gross yield per unit is not too low.

From the social standpoint the greatest importance is attached to conditions which secure for the working population an essentially and permanently rural livelihood. This implies residence in the country, preferably in scattered houses, and adequately steady agricultural employment throughout the year, of which a high percentage should be the work of permanent (not casual) labourers, definitely connected with the farm either as small independent farmers; or under annual or longer agreements, in which the principle of sharing in the production should be given the widest possible application. The social importance of these conditions may also suggest the advisability of placing certain obligations on the landowners, to be laid down in the fundamental lines with which we are dealing.

Who is it who draws up the land-reclamation plan, and, subsequently, the projects for the execution of the public works required, and who carries out these works?

As a rule these matters are attended to by the consortium of landowners of the reclamation circumscription. After obtaining from the Government a concession for the works, the consortium draws up, through its own technical offices, a general plan which it submits for approval to the Under-Secretariat; when it has been approved the consortium draws up projects for the execution, in successive lots,¹ of the public works foreseen under that plan, and when these have likewise been approved, it provides for their execution, either directly or through contractors.

The progress made with the execution of each lot is inspected at brief intervals (generally every six months)

¹ "Lot" is the expression used to designate a group of works forming a working unit *per se*, which can be the object of a separate test or check up.

by government officials, and when the whole work is completed it is checked up. The operations for the financing of the work, described in our next chapter, are regulated in accordance with these inspections and final check.

The concession for the execution of the works is given by preference to the consortium; it may, however, be given to the owner of the major portion of the land to be reclaimed, and, the execution of certain special works provided for in the plan may be entrusted to other concessionaires.¹

It may happen that the landowners do not of their own initiative form a consortium under the rules laid down by the Act, that the Government does not see fit to exercise its right to set up a compulsory consortium, and that no owner of a major portion of the land to be reclaimed is inclined to undertake the concession.

In such cases the Government may select other means: it can act directly, instructing its own technical organs to draw up the general land-reclamation plan and the executive plans for the public works required, itself taking the necessary steps to ensure their execution,² or it may grant a concession to provinces, communes or their consortia, instead of to landowners' consortia or individual landowners.³

Among the bodies to whom land-reclamation concessions may be made and to which preference may be given

¹ Concessions for reafforestation works and the regulation of mountain sections of water-courses may be given to provinces, communes, or their consortia. They may also be given to persons to whom concessions have been made for building artificial lakes or reservoirs. Concessions for important road systems, or for drinking-water systems may be given to provinces or communes. Should the concession not be made to single or associated landowners, the Provincial Federation of Agriculturists must be consulted before a decision is taken. (See on p. 207, Art. 13 of the Rules on integral land-reclamation.)

² The Act provides that land-reclamation works may be carried out by the Government itself, even if it could make a concession to the associated or individual landowners. But whenever possible the Government generally prefers the concession system.

³ In such cases the Provincial Federation of Agriculturists, their legal representative, must always be consulted before the concession is made.

over the associated or individual landowners, is the National Foundation for Ex-Servicemen (*Opera Nazionale dei Combattenti*).

The general land-reclamation plan also outlines, as stated, the fundamental policies governing the agricultural conversions which the landowners comprised within the reclamation circumscription are required to carry out within the periods fixed by the Under-Secretariat. The landowners submit the plans for the works through the medium of the consortium, along with the latter's opinion. The plans are examined by the technical organs of the Under-Secretariat, which ascertain their conformity with the fundamental policies agreed on, fixing, within the limits prescribed by the Act, the percentages of costs allowed in the form of a Government grant. The landowners then proceed, within the period prescribed, to execute the works, which they either finance themselves, or with the help of Government grants paid at the different stages in the progress of the works after they have been checked up; or else by means of special loans made by the agricultural credit banks. In the latter case, the Government contributes 2·50 per cent towards the interest charges on the loans, the capital sum representing this contribution being deducted from the grants above referred to.¹

The landowner may ask the consortium to carry out the works for which he is responsible, and in such cases the consortium is required to undertake them. If the landowner does not advance the money required for this purpose the consortium can secure loans (for reasonable amounts not to exceed 60 per cent of the value of the land to be improved increased by the value of the improvements, after deducting any mortgages already taken). These loans are guaranteed by a lien on the improved

¹ The grant, fixed by the Act at a maximum (see Chap. IV), equal to a given percentage of the costs, generally exceeds the capital represented by the Government contribution towards interest charges on special loans. The reverse may however be the case, and then the contribution towards interest charges is reduced so as to represent a capital equivalent to the grant allowed.

lands, without prejudice to mortgage and other real claims previously secured.

On the expiry of the term in which the landowner is required to carry out the works for which he is responsible, or before the expiration of that term should it be found that he is unable to carry them out within the period assigned, the Ministry of Agriculture and Forests may require the consortium to execute the works at the expense of the defaultant landowner, or it may expropriate the lands on behalf of the consortium if the latter make an application to that effect. Even if the consortium does not apply for expropriation, the Ministry may, order it on behalf of other parties who undertake to carry out the works, and who afford adequate guarantees.

When the lands are expropriated on behalf of the consortium, compensation is fixed on the basis of the net income normally yielded by the lands under the conditions existing at the time of the expropriation, capitalized on the basis of the average yield of the funded loan during the twelve months preceding the operation, with a maximum margin of one-half of one per cent.

Should the expropriation be made in favour of others than the consortium, tenders on the basis of the compensation as above fixed, are called for, and the lands are sold to the highest bidder, preference being given, if the offers be equal, to bidders owning other lands within the circumscription.

Here again the National Foundation of Ex-Servicemen is in a special position, as it has a right to expropriate, even if the landowners are ready to comply with their reclamation obligations. The lands thus expropriated and reclaimed by the Foundation are used for forming smallholdings assigned to the families of peasants who served in the war.

The mode of the procedure above described is that followed in the case of land-reclamation circumscriptions in which the works are carried out, on the initiative of the Government, with a view to securing important hygienic, demographic, economic, and social advantages.

In other cases, individual landowners or landowners associated in land improvement consortia may on their own initiative carry out works entitled to government grants. (Compare Chap. IV.)¹

The grants, which take the form either of a percentage of the cost, or of a contribution to interest charges on privileged loans, are made in accordance with plans submitted under the procedure above described for private works within land-reclamation circumscriptions.

It should be remembered that the said procedure is that laid down in the R. Decree of 13th February 1933. Prior to that date the systems followed were those prescribed in the several acts now codified by the above decree, systems which it would be superfluous to describe here.

It should however be noted that the previous acts, while containing a general statement requiring landowners to carry out the works for which they are held responsible in land-reclamation circumscriptions, said nothing about the mode or the penalties incurred for non-compliance, so that the obligation was not always respected. Nevertheless, many private works needed to complete the public works have been carried out in land-reclamation circumscriptions on the initiative of the landowners, with the assistance of the government grants above mentioned, and in some cases without them. Among these are farm conversion works in many reclaimed areas, more especially in the Valley of the Po, in Tuscany, etc., which however have not always fully satisfied the social and political purposes land-reclamation now has in view.

Such private initiative has been possible more especially in the case of small reclamation areas surrounded by lands already under intensive cultivation, offering models which could easily be copied. It would be much

¹ No land improvement works are excluded *a priori* from the right to a government grant; the Act however provides that the works in favour of which grants may be made in each province or section of a province can be limited to certain kinds agreed on in consultation with the Provincial Councils of Corporate Economy.

more difficult and would entail great delay in those cases when a new form of rural life has to be built up on wide areas from the foundations upward, by introducing forms of farming which have no local traditions, often amidst serious technical difficulties, as is frequently the case in South Italy and the Islands.¹

* * * * *

3. THE PART PLAYED BY OTHER PUBLIC BODIES

A. *The National Foundation for Ex-Servicemen.*²—A very important contribution to integral land-reclamation, and one of special ethical significance, is that made by the National Foundation for Ex-Servicemen. This body, placed under Mussolini's direct supervision, has been described by him as one of those forces "which I consider mobilized to perform a task, with the urgency of which I am more than ever impressed, that of ruralizing Italy."³ In this connection, the way in which the activities of the Foundation have developed along lines now all directed towards securing a rural revival, is truly significant.

The Foundation is a semi-official body, recognized as a juristic person, established by a Decree of 10th December 1917, No. 1970, granting free insurance policies to the men and non-commissioned officers on active service; a subsequent Decree of 7th March 1918, No. 374, made a further grant of policies to officers on active service not belonging to the permanent army, and subsequent measures extended the grant to yet further categories. The aforesaid decrees took effect as regards the issue of the policies as from 1st January 1918, but the organization and activities of the Foundation date from April 1919.

¹ Nevertheless, large-scale agricultural conversions have been carried out by the private enterprise of the landowners in South Italy and the Islands, but in almost all cases they have consisted in the introduction of orchards, vineyards, citrus groves, almond or olive tree plantations.

² See *L'Opera Nazionale per i Combattenti*, Stabilimento tipografico Carlo Colombo, Rome, April, 1933, XI. *L'Opera Nazionale Combattenti nel X^o Annale della Vittoria*, Rome, 1928, VI.

³ See the second work mentioned in above footnote.



MUSSOLINI THRESHING WHEAT GROWN ON FORMER MARSH LANDS, JULY 1934.

Courtesy of Opera Nazionale per i Combattenti.

The tasks assigned the Foundation were those of liquidating in advance the said policies, if this were requested for purposes of work or study, three months after demobilization at the conclusion of the war, and of affording economic, financial, technical and moral assistance to ex-servicemen. Under the first regulation, approved by Decree of 16th January 1919, No. 55, the Foundation was to work through three separate branches: the first, for agrarian activities, was to build up for itself a landed capital which it was to make profitable by utilizing thereon the work of the ex-servicemen; the second, for social activities, was to facilitate the business and professional efforts of ex-servicemen; the third, for financial activities, was to assist ex-servicemen and their organizations in resuming their productive activities by the grant of credit. These regulations were first amended by the Decree law of 31st December 1923, No. 3258, which remained in force until it was superseded by the R. Decree Law of 16th September 1926, No. 1606.

Under the regulations as thus amended the purposes of the Foundation are:

... to promote the economic development and better social adjustment of the country, mainly by providing for farm land conversions and the growth of small- and medium-sized holdings, with a view to increasing production and encouraging the permanent residence on the land of a denser agricultural population.

In fulfilling this purpose the Foundation aims at raising the economic and moral status of the officers and men who fought for the defence of the country.

Article 2 provides that the Foundation shall, in special cases, provide land and agricultural credit for improvements, and may for this purpose obtain loans from the institutions mentioned in the same article.

Under Article 3

... the Foundation promotes agricultural settlements and new centres of habitation, to which it calls farmers who served in the fighting ranks; it encourages the growth of agricultural and fishery industries, and favours the formation of associations and institutes

for the collective purchase and sale of farm requisites and products, for farm insurances, and for the processing of farm products.

Moreover it

. . . provides by means of education and publicity for spreading and improving vocational training, with special reference to the agricultural instruction of ex-servicemen in the South and Islands.

For purposes of moral, economic, financial and technical assistance, the Foundation has entered into arrangements with the National Association of Ex-Servicemen, to which it pays a contribution.

The Foundation is placed under a President, assisted by an advisory committee and by a General Director, who is placed at the head of the technical and administrative services, and is responsible for them to the President.

The Foundation was originally endowed with a capital of 300 million lire, increased by the landed capital it has gradually acquired. In 1933 this consisted of 63,951 hectares, being lands formally belonging to the Crown and donated by H.M. the King, and of lands acquired under the common law or transferred under special legal enactments.

The Foundation is authorized by law to request that the property of lands to whoever they may belong subject to land-reclamation obligations, or susceptible of important land conversions, or suited to industrial uses strictly connected with the agricultural activities to which they are assigned, or needed for the erection of villages or land settlement centres, be transferred to it. The conveyancing of such lands is effected under special rules, after a decision has been given by a Central Arbitration Board. The Foundation can also request the assignment on perpetual or long-term lease of farm properties belonging to the State or other public bodies, when the said properties could be used in securing the aims the Foundation has in view.

The execution of the land-reclamation works required for utilizing the lands, which gradually come to form part of its landed capital, is ensured by the Foundation either

by carrying them out directly, availing itself for this purpose of the work of ex-servicemen, either individually or organized in associations, or indirectly by the grant of concessions or by contracting the land out wholly or in part to corporations or organizations offering the requisite technical and financial guarantees, which undertake to employ by preference ex-servicemen in the execution of the works entrusted to them. For such purposes the Foundation may promote the organization of corporations, or participate in them and supply them with the requisite capital and technical equipment.

Subsequently, the lands thus prepared for immediate cultivation, are granted to ex-servicemen who are farmers, or to co-operative associations of farmers provided their membership consist almost exclusively of ex-servicemen. As a rule, these concessions take the form of term agreements for sale or deeds of sale. On the signature of the agreement the concessionaire pays down one-fourth or one-fifth of the price agreed on, the remainder being paid off in ten annuities of which the first five are for smaller amounts than the following. This enables the concessionaire to attend quietly to the improvements laid down in the contract and to intensifying the yield of the several crops.

The following data on the work of the Foundation are taken from the report already quoted *L'Opera Nazionale per i Combattenti*, published in April 1933.

WORK OF THE FOUNDATION AT THE END OF 1932.

(A) Hydraulic reclamations and hydro-forestry reconditioning	hectares
works on an area covering	450,000
(B) Agricultural land conversions:	
(a) area already divided and definitely granted to farmers, who after fulfilling all contractual obligations, have become owners of the land	17,839
(b) area divided and assigned under contracts for term sales, ownership of which is secured by the gradual payment of the price agreed on	9,074
(c) area sold in large lots under final deeds of sale	7,174
(d) area still owned by the Foundation and managed by it under different forms of farm agreements (these are the big farms belonging to the Foundation)	54,878
Total	<u>88,965</u>

The 26,913 hectares which at that date had been already divided up into farms, have been made over in fee simple to 14,166 ex-servicemen farmers. In 1932 2,113,112 days of work were given.

Before entering on its present phase of eminently rural activity the work of the Foundation passed through other stages. The Fascist régime, from the very start, made the process of production the central point of its system, subsequently developed and completed by the guild or corporative organization. Its guiding policies, which aim at obtaining the best possible results from productive activities, and the recognition of the great national importance of rural life, have been responsible for the present activities of the Foundation, all concentrated on building up a great rural civilization. Thus, on the one hand, we have the great farms belonging to the Foundation which have all attained by now a high degree of efficiency, equipped on the most up-to-date lines, and managed in accordance with the most scientific systems. The lands are utilized to the fullest extent allowed of by improved farming organization, and are now going business concerns. On the other hand we have the many-sided contribution which the Foundation is making to the execution of integral land-reclamation, a contribution characterized by exceptional rapidity of execution, by the enthusiasm shown in carrying out all aspects of the work so as to secure the complete renewal of farming systems, and by detailed attention to every feature of the vast land settlement schemes which Fascist policies call for.

All interested in economic, sociological, and political problems will be able to appreciate the full significance of the activities of the Foundation when they consider that it has been entrusted with the task of founding Littoria, Sabaudia and Pontinia in the Pontine Ager, which for thousands of years was a desolate fever-breeding swamp now practically reclaimed.¹ Three months after its foundation, Littoria had 7,400 inhabitants. Sabaudia

¹ See p. 132.

was inaugurated on 15th April 1934, a few days ahead of the date originally fixed.¹

* * * * *

B. *The National Association of Land-Reclamation Consortia*.—We have already described under paragraph 4 of our Chapter IV, the organization of the integral land-reclamation consortia and their activities, which form an essential part of the land-reclamation system provided by recent legislation. We will here explain how the fulfilment of their tasks has been made possible by the help thus afforded and by the supervision exercised by their National Association.

This Association, to which all land-reclamation consortia are required to belong, was set up by R. Decree law of 26th April 1928, No. 1017,² enacted on 20th December 1928, No. 3226. It is presided over by the Under-Secretary of State for integral land-reclamation and consists of a presidential bureau and a Board of Directors. It has a General Direction at the head of four services, the administrative, the financial, the agrarian, and the technical. It is assisted by three advisory committees of experts, presided over by the General Director of the Association, the first consists of administrative experts, the second of engineers, the third of agronomists. It has set up a committee for financing land-reclamation works³ on which sit the representatives of the leading credit institutes which supply the required capital. In its dealings in the various regions, the Association avails itself of the collaboration of the district agrarian inspectorships, assisted in their turn by special advisory committees on which sit representatives of the leading consortia of the region. For Sicily the Association has made an arrangement with the *Istituto Vittorio*

¹ See p. 144.

² An instance of the great difference in the spirit and pace of the organization of integral land-reclamation from the old bureaucratic systems is afforded by the fact, noted by the first President of the Association, His Exc. Prof. A. De Stefani, that it was set up on the 26th April 1928, and started work in May of the same year, even before its articles of association had been approved.

³ See p. 124 of Chap. VI on the financing of integral land-reclamation.

*Emanuele III per il bonificamento della Sicilia*¹ which acts as its agent for the Island.

Summing up, it may be said that the Association takes the necessary steps for enabling the consortia and the other concessionaires to carry out the purposes of integral land-reclamation, for the decree which set it up requires it to "encourage, assist, and supervise,"² their activities.

Just as the corporative principles, which secure the integral character of land-reclamation, have led to the assignment to the consortia of both government and private works, so they have also led to the establishment of this central organ entrusted with the dual task of assisting the consortia to secure the means for overcoming their difficulties, and of making sure that the purposes the Government has in view and which justify its very heavy contributions to the cost of the works, are really secured.

It is obvious (although the former systems failed to take it into account) that a fundamental factor of success in land-reclamation is the certainty of regular and ade-

¹ This Institute was set up by a decree law of 19th November 1925, No. 2120, on the initiative of the Bank of Sicily, to encourage, assist, and supplement the actions of single individuals or associations in the field of land-reclamation, by co-ordinating them with those of the Government. It has at its service a specialized staff engaged in consultation with the Association.

² The decree setting up the Association defines its three tasks above mentioned in the following manner:

I. It encourages the activities of its members by (a) spreading knowledge of the technical and administrative problems involved; (b) by taking, at the request of the landowning promoters and of the prefects the preliminary steps required for forming consortia; (c) by drafting articles of association; (d) by sending its delegates to the meetings held for forming the consortia so as to ensure the regularity of the proceedings and notify to the Government any omissions.

II. It assists and facilitates the action of the consortia by (a) organizing, at the request of the parties concerned, land registers, accountancy systems, and other matters required to ensure the initial working of those bodies; (b) by preparing plans for the classification of the lands, for the repartition of the costs, and for the equalization quotas connected therewith; (c) by undertaking the temporary management of the offices of the consortia; (d) by facilitating financing operations, placing the associated bodies in touch with the credit institutes granting the loans; by facilitating the preparation of the deeds connected therewith; by giving effect to transactions of general interest; by super-

quate financing. The activities of the Association and its financial offices are described in Chapter VI.¹

The general activities of the Association, in so far as they can be distinguished from those of its special services, are very varied: they comprise the amalgamation of consortia and the unification of their offices, legal questions involved in agreements with contractors,² the

vising on behalf of the credit institutes the use made of the capital loaned; by issuing, if need be, interest bearing bonds, when authorized thereto by the Ministries concerned; (e) by encouraging the collective purchase of material, equipment, and machinery required by the associated bodies; (f) by settling amicably on its own initiative or at the request of the Government, disputes which may arise between the associated bodies; (g) by opening or participating in the organization of special courses for training the administrative and technical staff.

III. It supervises the activities of the consortia, supplementing in this field the supervisory work of the government inspectors and is empowered:

(a) to carry out periodical inspections so as to report to the qualified Ministry on the book-keeping methods adopted by the consortia, on the keeping of the land-register, and on the general adequacy of the technical and administrative organization;

(b) to verify the upkeep of the works and the adequacy and stability of the plants, making an annual report to the qualified Minister;

(c) to require that the sworn agents of the Board of Civil Engineers and of the Consortia summons persons for infringements of the police regulations;

(d) to ensure, at the request of the Government, the emergency administration of the consortia, should their normal administration be dissolved.

Moreover, the new land-reclamation act has considerably enlarged the duties of the Association, as is shown by Articles 14, 62, 63, 65, 81, 87, and 114, of the new regulations for integral land-reclamation published on p. 202.

¹ See p. 124.

² The Association has made a special study of the problems connected with contracts among which that of the relations between landowners' consortia and contractors are of special importance, closely connected as they are with that of the investment of liquid capital in the land.

The difficulty of finding an adequate solution of the problem of the relations between consortia and contractors depends on the following concatenation of factors: 1. One of the chief reasons which induce the Government to grant concessions for the works to the landowners' consortia is the desire to obtain by this means a guarantee that their execution will be prearranged and co-ordinated with a view to those agricultural conversions which justify them and that they be carried out at the least possible expense. 2. This guarantee is however weakened if to avoid trouble the consortium prefers to entrust the study of the plans and the execution of the works to powerful contractors, who undertake to advance the monies required. 3. On the other hand it is useful, indeed essential, that the liquid capital flow toward land conversion investments; only thus is it possible to avoid that excessive indebtedness which occurs when landowners, without liquid capital of their own, attempt to retain the whole of their estates, meeting their land-reclamation obligations exclusively by

promotion of study courses for training a specialized administrative, agrarian, and engineering staff, studies and research work, etc. The administrative services organize and supervise the administration of the consortia, undertake the direct management of those entrusted to the Association as an emergency measure, and other services. The agrarian service, besides advising on specific matters, collaborates with the Consortia in planning farming programmes, in formulating farm-land conversion policies, in guiding the work of the agrarian experts attached to their offices. It also studies suitable solutions for large-scale problems of a general description. The technical service acts in an advisory capacity on engineering questions, verifies the execution of the works carried out by the concessionaires as a basis for the provisional financing,¹ collects technical information and documentation on the work of the Consortia, collects bibliographical and scientific matter referring to land-reclamations, organizes shows, exhibitions, etc.

The following table, in which the number of consortia affiliated to the Association on 31st December 1933, and the areas belonging to each group according to former classification are shown, supplies separate data for those formed before and since the foundation of the Association, thus showing what the increase of activity has been as also the policies and aims of the new consortia.²

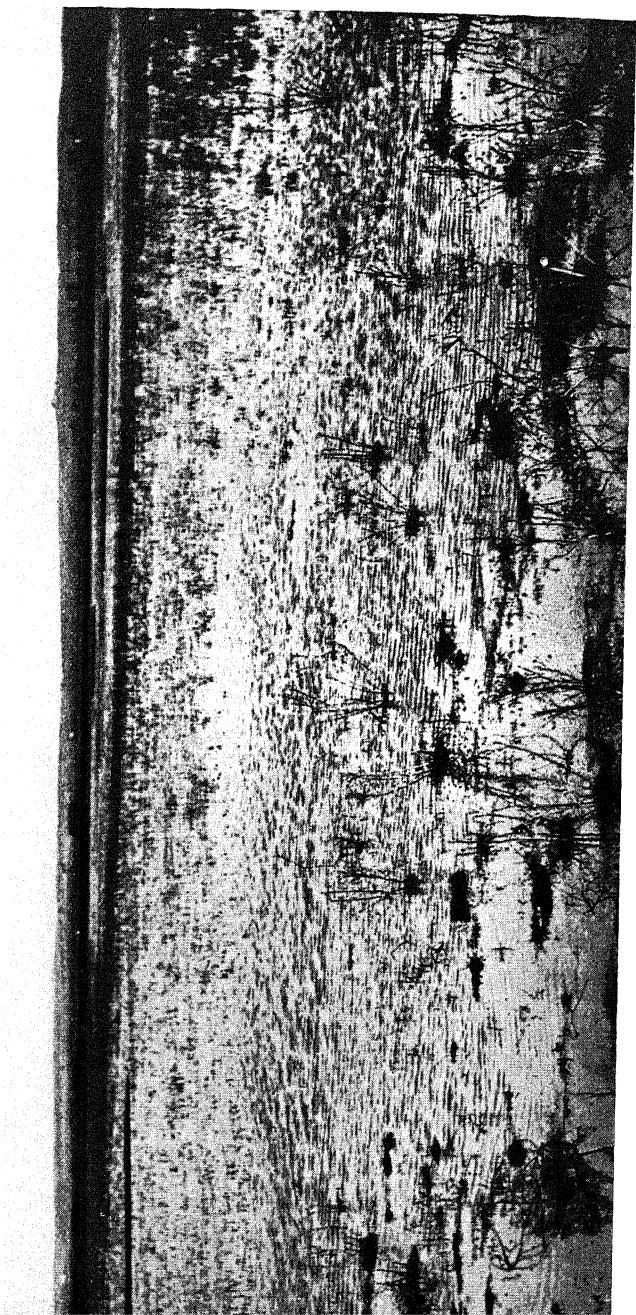
credit. In this connection we need only remember that in the case of great land conversion schemes it is often necessary to invest in extensively cultivated lands a capital greatly in excess of their low initial value.

The Association has dealt with this complex matter in a special study which contains some typical forms of agreement, specially drafted, accompanied by a theoretical exposition of the problem in an introduction written by the President of the Association (*Associazione Nazionale fra i Consorzi di bonifica e di irrigazione; Consorzi di proprietari e imprese capitalistiche nella bonifica integrale*. Rome, 1930, VII).

The Association, with the approval of the Under-Secretariat of State for Land-Reclamation, on the strength of experience acquired, has decided to approve only those agreements in which the contractor is required to share in the risks incident to land conversions, by purchasing, renting or otherwise acquiring the right to use part of the land-reclamation circumscription.

¹ See p. 122 and 126.

² See on p. 128 a table dealing with the financing of the consortia arranged through the medium of the Association.



MACCARESE BEFORE RECLAMATION.
Courtesy of "Maccarse Società Anonima di Bonifiche" (photo Vasan).

CONSORTIA AFFILIATED TO THE ASSOCIATION ON 31ST DECEMBER 1933,

According to Former Classification.	Number of Consortia.			Area Represented.		
	Prior to 26th April 1926. ¹	After 26th April 1926. ¹	Total.	Prior to 26th April 1926. ¹	After 26th April 1926. ¹	Total.
	No.	No.	No.	Hectares.	Hectares.	Hectares.
1st cat. Hydraulic reclamation	124	123	247	1,480,557	1,433,022	2,913,579
2nd cat. Hydraulic reclamation	35	58	93	116,799	214,405	331,204
Land Conversion and integral reclamation .	5	131	136	140,116	1,380,717	1,520,833
Reconditioning of mountain basins	2	8	10	84,359	25,739	110,098
Irrigation	63	601	664	83,950	581,845	665,795
2nd and 3rd cat. hydraulic works	66	76	142	421,280	178,614	599,894
Total	295	997	1,292	2,327,061	3,814,342	6,141,403

On 31st December 1934, the number of bodies affiliated to the Association was as follows :

BODIES AFFILIATED TO THE ASSOCIATION ON 31ST DECEMBER 1934.

Classification.	Number.			Area in Hectares.		
	Consortia.	Other Bodies and Juristic and Physical Persons.	Total.	Consortia.	Other Bodies and Juristic and Physical Persons.	Total.
Land-reclamation . .	425	198	623	4,398,069	287,567	4,685,636
Land improvement . .	857	71	928	1,158,405	27,702	1,186,107
2nd and 3rd cat. drainage works	184	7	191	462,697	2,251	464,948
Mountain basin reconditioning	8	18	26	125,810	49,550	175,360
Total	1,474	294	1,768	6,144,981	367,070	6,512,051

* * * * *

¹ Date of the foundation of the Association.

C. *National Secretariat for Mountain-Lands*.¹—The National Secretariat for Mountain Lands which arose as a *de facto* institution in 1919 was converted by a R. Decree of 4th November 1926, No. 2218, into a consortium bringing together the State and certain agrarian, syndical, administrative and credit institutions. In 1929, a R. Decree of 10th October, No. 1885 placed it under the Under-Secretariat of State for Integral Land-Reclamation thus co-ordinating its activities with those of land-reclamation. It was subsequently reorganized by the R. Decree Law of 8th March 1934, No. 679.

The tasks assigned to the Secretariat for Mountain Lands can be summed up as follows: the Government assists in various ways, by capital contributions, assistance in the payment of interest rates, exemption from taxation, etc., those owners of mountain lands—of whom a large proportion are Communes and other public bodies—who improve the pastures, woods, and mountain areas in general, requiring them in return to fulfil such tasks as the drafting of plans for the economic utilization of the woods belonging to the Communes, for regulating the use of grasslands, etc.²

¹ See the annual reports contained in the volumes *La legge sulla Bonifica Integrale nel . . . (primo, secondo, terzo, quarto, quinto) anno di applicazione* and also *Il Segretariato Nazionale per la Montagna*, Rome, Year V; *Il Segretariato Nazionale per la Montagna (Decreti, Regolamenti, Notizie statistiche)*, Year VIII.

² The plans for the exploitation and management of communal woods aim at avoiding unregulated usage and at so arranging exploitation as to secure continuous production over periods of time. Similarly, the regulations for the use of communal grasslands by persons entitled to graze their flocks thereon, aim at improving them in the interest of the mountain population, thus reducing the need for unregulated intensive exploitation of the woods. *La politica agraria in Italia e i recenti provvedimenti legislativi*, to which we have already referred, sets forth in the following paragraphs these fundamental points of Fascist rural policies:

"Italian mountain lands, which occupy nearly two-thirds of the national territory, are thickly populated by small holders, one of the most valuable elements in the Italian nation. It would be absurd to think of turning them out to make room for woods. . . .

"As mountain agriculture and animal husbandry gradually become more profitable the tendency of the mountain population to replace woods by meadows and grazing-lands in the Alps, and woods and grasslands by arable land in the Appenines, will decline. It is useless to object that the process is a slow

The technical needs of these works, and the characteristic difficulties of the mountain environment, are such however that both private and public owners, desirous of taking advantage of the help afforded by the Government and willing to comply with the requirements above mentioned, are in most cases unable to do so for lack of the necessary equipment and technical, administrative, and financial preparation. For this reason legislation to encourage and require action for the improvement of economic conditions in mountain zones formerly gave negative results, it was only applied on a limited scale. Moreover, as the Government cannot replace the owners on mountain lands in planning, directing and carrying out the works needed, for which they and not the Government are responsible, it is the duty of the Secretariat for Mountain Lands, organized for that purpose,

one; no other shorter offers, for no police measures can succeed in over-riding a whole population, struggling to secure the bare necessities of life.

"The area (over 4 million hectares) under woods is still a fairly extensive one in Italy; they occupy 16 to 17 per cent of the whole territory. But, generally speaking, these woods are poor and ill-managed; the yield secured is very scanty, and the population therefore looks upon them as a nuisance to be got rid of; they are often so thinned and so degenerate—partaking more of the nature of brushwood than of that of real woods—that they cannot even fulfil their protective functions. The area under woods must be extended; but first of all those now in existence must be improved and placed under better management.

"Soil stability in mountain areas and the related problem of improving the régime of the waters, cannot be secured by taking care of the woods only. Fields, meadows and grasslands must also be provided, and this entails the need of introducing a rational hydraulic system in mountain areas. Moreover, much of the land in the region of the Appenines can be more readily reconditioned by wise use for arable purposes than by planting it with trees. In solving the complex problem involved in finding the régime best suited to mountain lands and their water-courses, due care must be taken to co-ordinate it with the land and water régime existing in the plains. This means that the problem must be considered as one intimately connected with that of those integral land conversions, which alone can provide the economic stimulus required for carrying out this work."

This statement brings us back to the indissoluble concatenation and complementary character of the several factors involved in integral land-reclamation. The extensive nature of these problems becomes apparent when we consider the requirements of mountain lands. Indeed, it is only by obtaining an accurate view of them, as set forth in the statement above quoted, that we can grasp the nature of land-reclamation work as a whole, and realize the laborious historical process of its evolution.

to give the requisite administrative, technical and financial assistance to the owners, more especially if they be communes and other public bodies, in return for an equitable remuneration.

Article 2 of the R. Decree Law of 8th March 1934 states that the Secretariat is formed for the purpose of affording, in mountain areas, technical, administrative and financial assistance to those public bodies and private persons who purpose carrying out land improvement works on their country estates, availing themselves for this purpose of existing legal facilities.

In exceptional cases the Secretariat may also act in lowland areas, if private enterprise be lacking or inadequate.

The Secretariat attends more especially to:

- 1, the study, planning, direction, and supervision of land improvement works;

- 2, the drafting of plans for the economic utilization and improvement of country estates belonging to public bodies or private owners;

- 3, the steps required for securing the approval by the qualified authorities of the above projects and plans, the grant of the Government contributions relating thereto, and the loans needed to finance the works;

- 4, the Secretariat may also carry out, under a concession, the studies, research, and experimental work required for drawing up general plans and projects for land-reclamation in mountain zones.

The nature and value of the assistance given by the Secretariat will be better understood if we bear in mind that, in most cases, extensive and costly works likely to attract big and well-equipped concerns, would be neither suited nor useful, as under the prevailing environmental conditions small-scale works requiring great care and very careful expenditure of the small available savings, laboriously and slowly accumulated by the mountain-side population, are what are needed. Therefore, in carrying out the works entrusted to it the Secretariat never acts as contractor but as representing the interests of the Com-

munes and landowners, and it undertakes all the responsibilities entailed by such representation.

The duties assigned to the Secretariat include that of inducing mountain landowners to avail themselves of the measures taken by the Government on their behalf. Thus its work has that dual aspect which so often characterizes the institutions organized by the Guild State, for while it permits the attainment of the ends in view it also uses its good offices to induce all whose participation in the work is deemed necessary to contribute thereto.

The educational propaganda is the direct and highly effective result of the work the Secretariat carries out. Its efficiency is shown by the number of works entrusted to it, even in those mountain areas which have always been considered the least amenable to such efforts, and even more by the requests for assistance which it receives.

The Secretariat is presided over by the Under-Secretary of State for Integral Land-Reclamation; it has a Board of Directors, an Executive Board, a Board of Audit, a Central Direction, and decentralized technical offices in the county towns. These offices generally limit their activities to the province in which they reside, but they may extend them into bordering provinces. There are thirteen provincial technical offices, and it is noteworthy that those in South Italy and the Islands which were the last opened, accounted for a high percentage of all the work performed by the Secretariat in the last two business years, thus affording further proof of the support given to the country's major and most keenly felt needs in this field.

The expenses of the Secretariat are met by:

- 1, the Government which makes an annual grant of 670,000 lire;

- 2, those Provincial Economic Councils, syndical, guild, and agricultural credit organizations, etc., which become affiliated to the Secretariat by assigning to it, for a period of not less than 5 years, an annual contribution of 5,000 or 10,000 lire;

3, ordinary or special contributions made by public and private bodies;

4, fees and contributions paid to the Secretariat for drafting plans and directing works entrusted to its care, and for other assistance which it affords.

The following table shows the work performed in the last two years:

WORK PERFORMED BY THE NATIONAL SECRETARIAT FOR MOUNTAIN LANDS
IN THE YEARS 1933 AND 1934

Description.	Number.		Cost in Lire.	
	1933.	1934.	1933.	1934.
Improvement of mountain grass lands:				
carried out	150	229	5,444,774	6,596,929
planned	101	131	9,486,853	12,711,743
under consideration .	98	173	8,159,481	16,016,217
Total	349	533	23,091,108	37,324,889
Other land improvement works (roads connecting farms; aqueducts; rural buildings; irrigation works, etc.):				
carried out	28	56	1,560,556	2,245,533
planned	47	118	6,633,062	15,966,108
under consideration .	81	90	15,236,914	12,160,100
Total	156	264	23,430,532	30,371,741

These figures show the pre-eminent importance given to the improvement of mountain grazing-lands. This is in keeping with the organic policies followed in land-reclamation work which recognize not only the urgent need of such work but consider it also as a first essential

step towards the accomplishment of others and as specially valuable in improving the economic status of the mountain populations, for the rapid returns thus secured induce these people to avail themselves of the other forms of assistance provided by the Government to encourage the reconditioning of mountain lands. The Secretariat is, however, no less zealous in promoting other works. Judging by the activity it displayed during last year in road building, it would appear that the need of means of communication rates next to that of better grazing-lands in mountain zones, and the attention devoted to rural aqueducts, to whose cost the Government contributes 75 per cent, is in keeping with the capital importance, both economical and social, of this improvement. Great attention has also been given to co-operative dairies, small and medium irrigation works, and generally speaking to all other agricultural works of importance to mountain zones while only in exceptional cases activity has been displayed in forestry works as they come within the purview of the Forest Militia.

* * * * *

D. The Commissariat for Internal Migrations and Land Settlement.¹

Another organization entrusted with a special duty of exceptional importance is the Commissariat for Internal Migrations and Land Settlement which provides for the rational distribution of available labour so that it may be put to the best uses both in the Kingdom and the Colonies.

This Commissariat was first organized by R. Decree of 4th March 1926, No. 440, under the designation of Permanent Committee for Internal Migrations, and reorganized in its present form by the Act of 9th April 1931, No. 358, which places it under the Head of the Government and enlarges its duties as above described.

The Commissariat is kept accurately informed of the

¹ See Presidenza del Consiglio dei Ministri. Commissariato per le Migrazioni e la Colonizzazione interna: *Le migrazioni interne in Italia nell'anno 1933*, XI. Rome, Società Anonima Poligrafica Italiana, 1935, and preceding years.

situation of the labour market in each Province, and keeps tally of the number of workers available, of the opportunities for local employment, of the number of peasant families which can find steady work in the territory of the Province, and of the families willing to move to other Provinces. It can provide that part of the labour employed on all public works be recruited from other provinces than the one in which the work is carried out, and it can grant awards to peasant families settling permanently in other parts of the country. The displacement of groups of workers and of peasant families from one province to find work in another must be arranged or authorized by the Commissariat, which is empowered to take measures, in consultation with the qualified organizations, for the modification of collective labour contracts in the immigration provinces so as to facilitate migration and settlement. It can make grants on behalf of hostels, first aid stations, relief works, dispensaries, soup kitchens, schools for adults, and after-work activities (*Dopolavoro*), and to public bodies, societies and individuals devoting themselves to such works. It can also make grants to the Italian Red Cross and to other institutions for the prevention and treatment of malaria and other epidemic diseases. It sees that the workers enrolled in the squads of migrants are physically fit and qualified for the work they are called on to perform, and it affords them moral, economic, and sanitary assistance.

As already stated, the Commissariat is placed under the orders of the Head of the Government and is directed by a Commissary for Internal Migrations and Land Settlement, assisted by a Secretary-General, who is at the head of the several services.

The funds at the disposal of the Commissariat are supplied by an annual government grant, an annual contribution levied on the funds of the guilds, an annual contribution made by the National Social Insurance Funds, and other sundry receipts.

The Commissariat publishes each year a collection of statistics giving an account of the migrations which have



MACCARESE BEFORE RECLAMATION.

Courtesy of "Maccarse Società Anonima di Bonifiche" (photo Vasari).

taken place during the year, from which we take the three following tables.¹

SUMMARIZED TABLE OF MIGRATIONS IN 1933.

Region.	Emigrants.			Immigrants.			Excess or Deficit of Arrivals over Departures.
	Males.	Females.	Total.	Males.	Females.	Total.	Total.
	No.	No.	No.	No.	No.	No.	No.
Piedmont . . .	25,457	12,867	38,324	38,289	36,708	74,997	36,673
Liguria . . .	1,915	472	2,387	6,597	634	7,231	4,844
Lombardy . . .	21,583	16,739	38,322	14,129	16,437	30,566	7,756
Tridentine Venetia	1,725	944	2,669	2,301	392	2,693	24
Venetia . . .	23,290	8,288	31,578	5,147	2,224	7,371	24,207
Julian Venetia and Zara . . .	1,929	273	2,202	4,966	682	5,648	3,446
Emilia . . .	23,489	22,267	45,756	14,256	2,097	16,353	29,403
Tuscany . . .	18,272	961	19,233	6,463	545	7,008	12,225
Marches . . .	7,905	3,052	10,957	4,149	2,708	6,857	4,100
Umbria . . .	5,072	330	5,402	3,114	344	3,458	1,944
Latium . . .	11,905	2,159	14,064	49,050	5,462	54,512	40,448
Abruzzi and Molise	19,477	2,088	21,565	16,933	1,678	18,611	2,954
Campania . . .	16,298	3,757	20,055	12,499	3,838	16,337	3,718
Apulia . . .	40,039	2,356	42,395	19,385	1,605	20,990	21,405
Lucania . . .	5,155	1,295	6,450	23,838	2,247	26,085	19,635
Calabria . . .	5,612	942	6,554	6,924	1,135	8,059	1,505
Sicily . . .	54,942	5,707	60,649	54,869	5,641	60,510	139
Sardinia . . .	4,045	525	4,570	5,201	645	5,846	1,276
Kingdom . . .	288,110	85,022	373,132	288,110	85,022	373,132	—

In considering the data contained in the following table dealing with migrations of farm-workers, it should be borne in mind that they do not cover migrations for land-reclamation and road work of all descriptions, as such works were then classified with industrial work and accounted in that year for 44.18 per cent of the migratory industrial-work movement. The farm-work calling for the largest number of migrant workers is the reaping and

¹ See *op. cit.*, *Le Migrazioni Interne in Italia nell'anno 1933*. The data contained in that and preceding volumes show the movements of the migratory currents giving data for sex, farm and industrial work, months, communes, the excess of emigration or immigration, the duration of the migration, the methods of placing workers, the migration of families, etc.

threshing of the wheat crop, the weeding of the rice-fields and the rice harvest.

SUMMARIZED TABLE OF FARM WORKERS' MIGRATIONS, 1933

Sex.	Number.	Per cent.
Males	212,376	73·2
Females	77,853	26·8
Total	<u>290,229</u>	<u>100</u>

The activity of the Commissariat in the matter of family migrations is of special interest to integral land-reclamation and to the general social and demographic progress of the country. Not only is the movement of importance because (a) it affords permanent relief to congestion in over-peopled zones and supplies population for land settlement zones, and (b) leads to the definite settlement of family groups on the reclaimed lands, but it makes a careful selection of the families desirous of emigrating, choosing those best suited to the purpose in view and collects particulars and remarks on the families thus transplanted, thus ensuring the success of the movement. It is also able to make a scientific study of the results of such migrations of family groups. For this purpose it keeps a file of the families in each province willing to move, noting their composition, working capacity, etc., and before the move, a careful inspection of each family is made by a medical officer and an agricultural expert. Thus, when 500 families were moved from Venetia to Littoria, they were selected from a list of 1820 families in the communes whence they came, and all the members of 704 families were carefully inspected. After the move, the Commissariat keeps in close touch with each of the families and continues to assist them. A card-index is kept for each family, showing births, deaths, and marriages, the working capacity of each of the members, their past and present occupations, their generic and specific abilities, their state of health and so forth, and any changes which may occur in the composition of the family after settling down in the new residence.

The mass of material already collected shows that the migration of these families from one zone to another almost always awakes new activities and reinforces the latent abilities both of the new arrivals and of the former residents.

SUMMARIZED TABLE OF FAMILY MIGRATIONS, 1933

Particulars.				Farm Workers. No.	Industrial Workers. No.	Total. No.
No. of families	.	.	.	1,889	74	1,963
Members:						
able to work	.	.	.	11,506	406	11,912
not able to work	.	.	.	3,929	95	4,024
Total	.	.	.	<u>15,435</u>	<u>501</u>	<u>15,936</u>

CHAPTER VI

EXECUTION AND FINANCING OF LAND-RECLAMATION WORKS

I. FINANCIAL PLAN OF THE MUSSOLINI ACT.

As they read and re-read this Act, all acquainted with the problems involved in land-reclamation cannot but be struck by its extraordinarily dynamic character. All the existing factors which could serve the purpose have been gathered up, assembled, and availed of. It is like witnessing the movements of an army brought together by a revolution. Amidst the crowd of faces one can distinguish the architect, with his feeling for elegance in line, the engineer accustomed to accurate calculations, the farmer with mud on his boots, the sunburnt mountaineer, and the cautious, parsimonious administrator. There has not yet been time to provide uniforms nor to determine the respective positions assigned to each, but already a lucid central control makes itself felt, which sees the goal to be attained, has reflected on the ways and means and knows what are the forces which can be counted on. The moderating influence of a central impulse which tests and amalgamates the several elements will bring order into the ranks and provide them with officers.

Indeed, one cannot but think that if integral land-reclamation had lacked the impulse imparted by this creative will it would never have been possible to overcome the unavoidable difficulties which arise during the slow, prudent, and laborious work of drawing up a plan, had the desire been to make it complete and final in all its details. It is for these reasons that the more one is acquainted with the inside problems of land-reclamation,

the more one is impressed by the historic and ethical significance of this Act. Integral land-reclamation not only requires of many persons a breadth of vision, outstripping individual limitations, which can only be attained when inspired by a strong will and a firm faith, but it has to overcome innumerable difficulties inherent in the very nature of the task, relating both to technical and scientific problems and to problems of organization. This firm will and this faith are postulated by the Mussolini Act, which provides the financial resources needed for action on a vast scale, while remanding until later all matters requiring further study and which can only be satisfactorily solved on the basis of experience gradually acquired.

Thus, for the time being, the Mussolini Act accepted the then existing classification of the works, and the division of authority between several Departments; indeed, the very wording of its clauses reflected these divisions. Unification requires time, and can be much more easily secured under the pressure of practical needs than as a result of abstract propositions. These often create confusion, owing to the many possible theoretic solutions which offer. In this connection we need only mention the diversity of opinion which might have arisen regarding the respective limits of agricultural and public works, of land-reclamation proper and general undertakings of economic and social importance.

The Mussolini Act, dealing mainly with the financial aspect of the task, provides the resources required for carrying out land-reclamation in accordance with a plan whose development it briefly outlines. Credits are allocated both for the works for which the Government is responsible (Art. 1 and 2 of the Act), and for the various others for which the landowners are responsible and which, since the issue of the R. Decree Law of 13th February 1933, No. 215, are grouped together in one chapter on "Land Improvements."

The funds are mostly granted in the form of thirty-year annuities, for an actual capital amount corresponding to

the Government's quota of the costs of the works for which it is responsible. In the case of certain land improvements the capital amount of the grant is paid down in a lump sum. In other cases, the annuities have to be discounted so as to secure the sums required to cover the costs which the Treasury meets.

In the case of works for which the Government is responsible the Mussolini Act prescribes the annual limit of the liability, and the annual limit of the payments, the ratio between these two determining, of course, the time required for the completion of the work.

The allocation of funds corresponds to the plan drawn up and is based on the cost of the works, the quota met by the Treasury, the rate of discount charged, the speed at which they are carried out. The total estimated cost both for Government and private works is placed at 7,000 million lire.

It was only natural that in the course of time the basis of the estimates had to undergo various modifications to adapt it to the needs which experience brought to light. It would be superfluous to detail these modifications, and we will only mention three of special importance.

As already stated, the funds are generally granted in the form of annuities. This meant that rapid progress could only be made when the works were carried out by concessionaires who could attend to discounting these annuities with the banks. But this meant that direct execution by the technical offices of the Government of certain works which for various reasons must be or are best carried out by this means was unduly hindered.

When the Under-Secretariat of State for Integral Land-Reclamation was set up, it dealt at once with this matter, and secured a further assignment of 150 million lire, payable over five financial years, for such purposes. But this did little to improve the situation, especially in the case of works for reconditioning mountain lands, which do not lend themselves to a régime of concessions.

It was then that the Under-Secretariat proposed and obtained a measure (Art. 3 of the R. Decree Law of

24th July 1930, No. 1146) authorizing it to discount the annuities written into the budget, thus securing not only the capital required for carrying out, by its own engineers, those works for which the Government is responsible, but also the capital required for subsidizing land improvements.

The Under-Secretariat has made good use of this right, which has enabled it to carry out programmes in keeping with recognized needs and also to encourage private enterprise so as to ensure the rapid execution of land improvement works.

In the second place, the need of rapid and intensive action to secure the settlement of the Pontine Ager necessarily led to the enlargement of the original plans, and for this purpose further grants were obtained under special enactments.

Moreover, the serious fall in the prices of farm products after 1929 made it impossible for the landowners in some of the reclamation areas to meet their share of the cost of public reclamation works, and their requests for help were met by applying a small portion of the funds assigned for the works themselves to lightening unduly heavy charges, the help being limited to that strictly necessary for making the said charges bearable.

On the other hand, many landowners, who had borrowed heavily to carry out the works for which they are responsible in the reclamation areas, were also granted relief by legislation to lighten unduly heavy debt charges.

The several modifications introduced into the original financial plan have only slightly altered the global amount originally allocated. Since 1929-30 the funds assigned for integral reclamation have made it possible to carry out a programme which can be summed up in the following approximate figures:

Public land-reclamation works

Carried out by concessionaires	L. 3,825,000,000
" " " Government	" 500,000,000
Total	<u>L. 4,325,000,000</u>

Private land-reclamation and land improvement works L. 2,455,000,000

Grand Total L. 6,780,000,000

The allocation of credits for these works is so arranged that liabilities are incurred annually until the financial year 1935-6, and the payments connected therewith will have been settled in full in the financial year 1969-70.

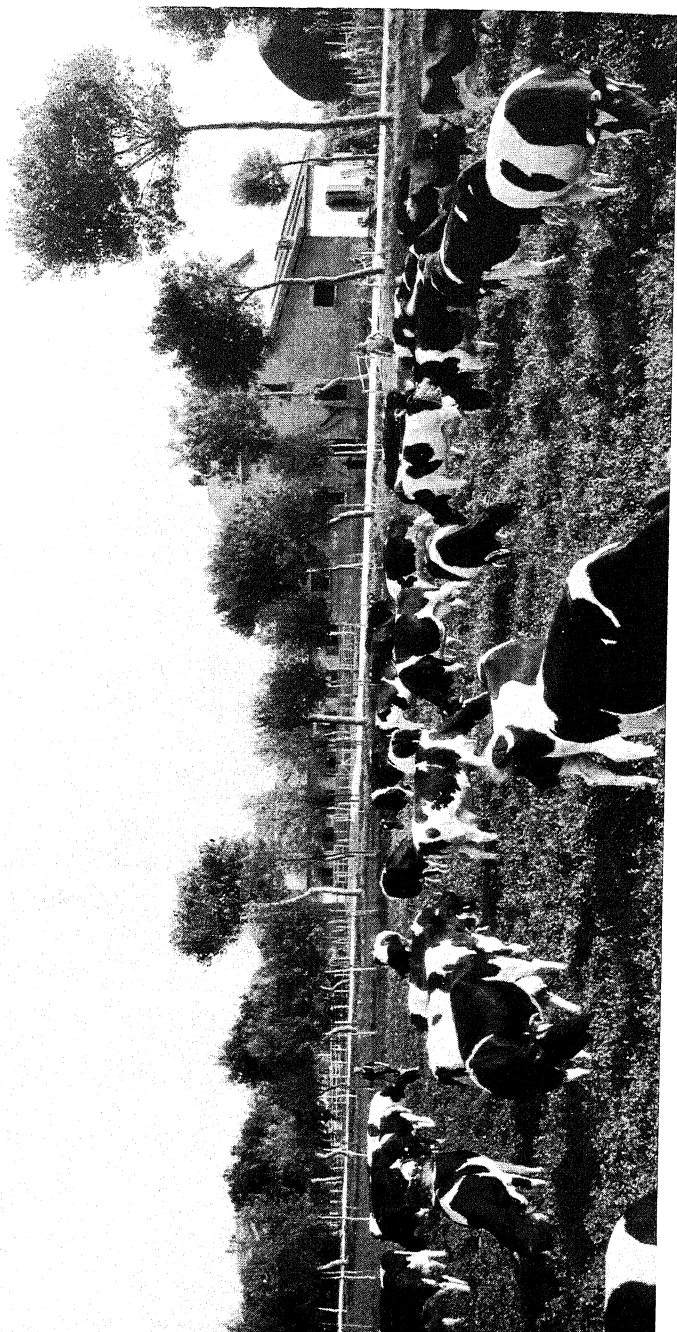
* * * * *

2. EXECUTION AND FINANCING OF PUBLIC LAND-RECLAMATION WORKS

For those public land-reclamation works which the Government itself carries out, the Under-Secretariat for land-reclamation can avail itself of credits written into the Budget, as well as of those obtainable by discounting the thirty-year annuities. The discount operations are carried out chiefly by the National Insurance Institute, and for smaller amounts by the Savings Banks and by several other credit institutes.

Some of the works, and more especially those for the reconditioning of mountain areas (reafforestation, etc.), are carried out by the technical organs of the Government (Forestry Militia, Civil Engineers, etc.), which meet the cost of wages, etc., as the work proceeds. But in most cases the Government contracts the work out, defraying the costs agreed on as soon as the work has been approved in accordance with the procedure laid down by the general laws on administration. In such cases the contractor advances the sums required until the work has been approved and the Government payments made.

In the case of works whose cost is met in part by the landowners, the Government recovers the quota due from them in the form of annuities payable for not less than



MACCARESE. CATTLE GRAZING.

Courtesy of "Maccarse Società Anonima di Bonifiche" (photo Vasari).

5 and not more than 50 years, covering both capital and interest, the charge being apportioned among them in accordance with rules described further on.

Most public land-reclamation works are not, however, carried out by the Government, but by concessionaires who, with few exceptions, are the land-reclamation consortia.

The concession is made for successive lots, i.e. for groups of works forming a working unit *per se*.

There are several ways of making concessions; the more important are *flat concessions* (*concessioni a forfait*) under which the concessionaire undertakes to carry out the work, in accordance with plans approved by the Government, for a sum fixed in the contract, any saving on costs being to his advantage and any additional expenditure to his loss; *concessions by measurement* under which the concessionaire undertakes the work, in accordance with the approved plans, against repayment of a sum determined by applying to the amount of work actually performed the per unit prices laid down in the contract. Under this arrangement the concessionaire takes the risk of price variations but not of variations in the amount of work performed; *concessions on the basis of actual expenditure* (*concessione a consuntivo*) under which the concessionaire undertakes the work, in accordance with approved plans, against reimbursement of actual expenditure as shown by vouchers, and approved as reasonable by a liquidating Commission appointed by the Government.

In the first two cases, overhead expenses (plans, management, supervision and administration, provisional financing costs) are repaid to the concessionaire on a percentage of costs basis, provided in the contract; in the latter case they are repaid in full, subject to the approval of the liquidating Commission.

Concessions made to consortia, which are public corporations, are generally on the basis of actual expenditure, this being the form entailing a minimum of risk.

The final settlement of the amounts due to the con-

cessionaire is made after the approval of the completed works by Government officials. A high percentage of the costs (as much as nine-tenths) may however be—and generally is—advanced against statements showing the progress of the work, viséd by the aforesaid officials at quarterly or half-yearly intervals.

After the settlement has been made (final after approval of the works, or provisional against statements of progress made) the concessionaire, who is generally the consortium, holds, for the amounts payable in thirty-year annuities, a credit against the Government for that portion of the works for whose cost it is liable, and against the landowners for the remainder.

The consortia to whom the concessions are made may execute the work directly through their own engineers, or they may contract it out by the procedure prescribed for public corporations.

These being the conditions, the forms of financing needed by the concessionaire will be readily understood. As the concessionaire is generally a consortium, we will consider what they are in this case.

The consortium has to secure funds:

(a) before securing the grant:

- (1) for its own organization and initial expenses (*initial financing*);
- (2) for the preliminary study and the drafting of the general reclamation plan and the plans for the several public works;

(b) after securing the grant:

- (3) for the so-called *provisional financing*, i.e. the capital required until—after receipt by the consortium of the advance credits granted on the basis of statements of progress made—the annuities have been discounted. These provisional financing arrangements come under two heads:

- (3a) *initial financing*, from the time the work starts until it is approved (on the basis of statements of progress made), and the

corresponding annuities delivered; and (3*b*) *intermediate financing* during the interval comprised between the delivery of the annuities and their actual discount.¹

- (4) for discounting the Government annuities delivered in discharge of its share of the costs of the work (*final financing*);
- (5) for discounting the annuities delivered by the landowners for their share of the costs (*final financing*).

Here it should be remembered that the share of costs for public land-reclamation works charged to the landowners has to be divided up between them according to the advantages accruing to each as a result of whole work or of separate lots of work. As it is difficult to make an apportionment fully corresponding to this criterion before the works are completed, a provisional apportionment may be made on the basis of preliminary and presumptive data on the advantages which will ultimately accrue (sometimes, in the initial stages of the work, on the basis of area only), the final apportionment with any necessary adjustments being made when the reclamation is completed.²

The rules regulating both the provisional and final apportionment of costs are laid down in the articles of association of the several consortia, and the plans for apportionment, drawn up in accordance with these rules, are submitted for the approval of the Government, which also acts on any complaints.

The credit held against each of the landowners by the consortium is in the form of thirty-year annuities. This credit enjoys ample security, for the contributions of the landowners to the cost of the work (and later on to its upkeep) constitute a real charge on their lands, collectable in the same way as the land-tax and enjoying the same privileges. They are a charge ranking immediately after the land-tax and the respective provincial and municipal

¹ Intermediate financing may extend over a period of several months pending the completion of an agreement with a bank for discounting the annuities.

² See note 1 p. 73 (Chap. IV).

surtaxes. For these dues, known as "Consortial contributions" the consortium draws up a roll, delegating their collection to a collector who may be the land-tax collector.¹

For some time the concessionaires of land-reclamation works—consortia or others—had to provide as each best could, for the several forms of financing above-enumerated. But it will be readily understood that as the work grew to imposing proportions, the drawbacks to such a mode of procedure were quite serious, both in cases where the concessionaires applied to a bank and in those in which they availed themselves of private offers, as it gave rise to competition, claims for mediation, etc.

For this reason steps were taken to centralize the financing operations in the hands of the Association of Consortia which, acting through a special committee on which the financing institutes and banks willing to assist in these operations are represented, regulates the applications for provisional and final financial aid presented by the consortia or other concessionaires, distributing them among the several financial institutes and banks in accordance with their character and possibilities, and on the basis of a general agreement stipulated with them, giving its assistance until the operations are completed.

The institutes represented on the aforesaid Committee are the following:

1. The National Fascist Institute for Social Provident Measures (Istituto Nazionale Fascista per la Previdenza Sociale),
2. National Insurance Institute,
3. Credit Institute of Italian Savings Banks,
4. National Association of Italian Savings Banks,
5. Credit Consortium for Public Works,

¹ A similar procedure for the apportionment and collection of the sums due by the several landowners holds good also in those cases in which the concessionaire is not a consortium but some other public body or private person, and also when the work is carried out by the Government itself. The plan for apportioning the cost among the several landowners continues to be subject to Government approval, when it is not drawn up by the Government itself. The contributions in this case also are collected in the same way as the land-tax.

6. Land-credit branch of the Savings Bank of the Lombardy Provinces,
7. Land Credit Institute of the Venetias,
8. Federal Institute of Venetia's Saving Banks,
9. Land-credit branch of the Monte dei Paschi,
10. Italian Land Credit Institute,
11. Land-credit branch of the Bank of Naples,
12. Land-credit branch of the Bank of Sicily,
13. Institute of St. Paul of Turin,
14. Land-credit branch of the Savings Bank of Bologna,
15. Sardinian Land Institute,
16. National Society for the Development of Land-Reclamation.

Coming down to details, provision is made as follows for the several forms of financing mentioned above:

(1) Financing for initial expenses is provided through credits granted by the Association to the new consortia out of a special fund placed at its disposal for this purpose ever since it was organized, or by a line of credit of 1,000,000 lire opened in its favour by the Bank of Naples and another of 1,000,000 lire opened by the Bank of Sicily, with a view to encouraging the organization of consortia in the South and the Islands;

(2) Financing needed for making studies and plans for the works (the cost of which is paid to the concessionaire, as above stated, along with the cost of the work, being included under the heading of overhead expenses) involves a special risk as it has to be incurred before the Government has granted the concession; on the other hand it is desirable that studies and plans should be carefully thought out, even if this entails heavy expenditure.

An effort has been made to meet these needs by the rules approved by the R. Decree of 13th February 1933, No. 215, under which studies and plans can also form the object of a grant, being treated as a first lot of work, the outlay therefore being reimbursed against statements of progress made, in the same way as for other lots. By the adoption of this system the risk formerly involved has been largely eliminated, and the financing of plans is

made on the same lines as those laid down for the execution of works, i.e. in the following manner:

(3a) *Initial provisional financing* required by the concessionaires until such time as the work shall have been assessed by the Civil Engineers (the cost of this—for which the concessionaire is reimbursed as part of the overhead expenses—is reduced by the fact that the assessment is made not only at the time of final certifying of the work, but also prior to that, on the basis of statements of progress made, delivered as a rule at quarterly or half-yearly intervals) incurs the risk of possible disapproval of the works by the Government. In view of this risk, such financing has been undertaken by institutes which are in a position to exercise their own supervision over the work under execution. This is done in part by the aforementioned Society for the Development of Land-Reclamation, which has the necessary technical equipment and has made special arrangements with the banks for the discount of its portfolio. It is also undertaken by the Credit Institute of the Savings Banks, on the strength of technical supervision carried out by the staff of the Association of Land-Reclamation Consortia, which has made special arrangements with the aforesaid Institute for that purpose.

(3b) *Intermediate provisional financing* entails no technical risk as the works have already been assessed and the amounts due to the concessionaire liquidated. Such operations are therefore perfectly safe and well suited to Savings Banks; they are undertaken by the aforesaid Credit Institute of the Savings Banks, using for this purpose the resources placed at its service by the Savings Banks themselves.

The possibility of obtaining this intermediate financing is a very valuable feature of the organization for financing land-reclamation works. It makes it possible, in case of need, to allow a certain interval to elapse between the date at which the executor of the works, after delivery of the annuities to which he is entitled, requires the use of the capital they represent, and the date at which the annuities

themselves can be discounted, thus enabling him to wait for a favourable opportunity for discounting them. This is all the more important when the discount is made by institutes making corresponding issues of debentures, which cannot always be placed on the market on favourable conditions.

(4) In the case of *final financing*, secured by discounting the Government annuities delivered to the concessionaire, the Finance Committee for land-reclamation works holds a meeting before the beginning of each business year, to examine the financial needs of the coming year, arranging for the distribution of the operations among the institutes represented on the committee. Most of the work is done by the National Insurance Institute, the National Fascist Institute for Social Provident Measures, and the Credit Consortium for Public Works. The latter attends to financing works by the issue of debentures.

(5) *Final financing* through discounting the annuities delivered by the landowners has so far been mainly provided by the Land Credit Banks against the corresponding issue of debentures. Now, however, these banks are required to limit their operations to transactions guaranteed by mortgages, and they have been replaced by the Agrarian Improvement Credit Consortium, which is authorized to issue debentures (obligations).

We should add that the rate charged for the discounts referred to under Nos. 4 and 5 is arranged with the banks undertaking this business, and that the Government liquidates in thirty-year annuities, calculated at the same rate of interest, the sums due by it to the concessionaires, who thus receive, without profit or loss, the amounts due to them.

The financial transactions above described, co-ordinated by the Association of Consortia, are now carried out with absolute regularity.

The following list shows the sums secured for the concessionaires belonging to the Association since May 1928:

Financial Year.	No. of Loan Agreements.	Amount in Lire.
May 1928 —30th June 1929	354	256,000,000
1 July 1929—30th June 1930	462	460,000,000
1 July 1930—30th June 1931	583	560,000,000
1 July 1931—30th June 1932	644	672,000,000
1 July 1932—30th June 1933	761	686,000,000
1 July 1933—30th June 1934	684	666,000,000
1 July 1934—31st December 1934	347	333,000,000
Total	<u>3,835</u>	<u>3,633,000,000</u>

Public land-reclamation works carried out and financed by the methods above described give rise to upkeep and working expenses which are sometimes very considerable, particularly so in the case of drainage and irrigation by pumping stations.

As a rule these expenses are charged to the owners of the lands concerned, from the time when the certificate of the completion of each lot of work has been delivered.

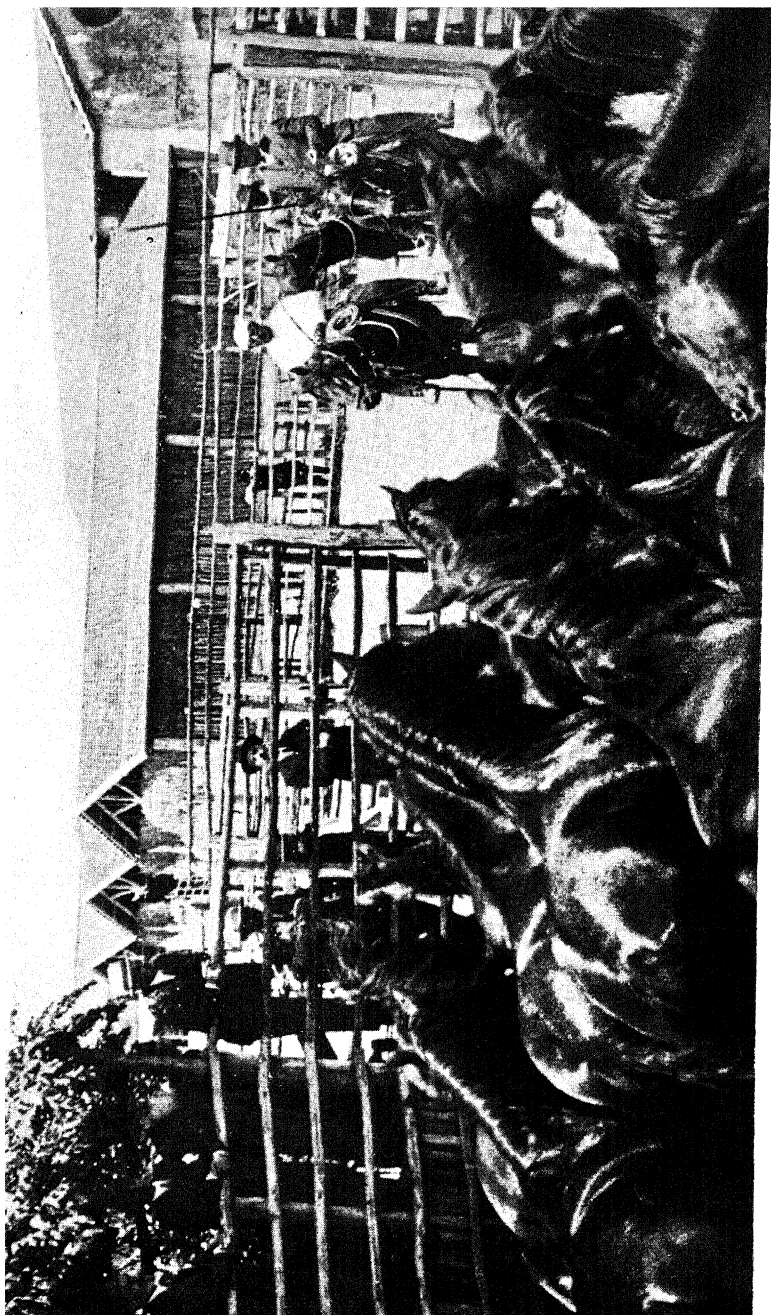
As a rule this is attended to either by the consortium, which carried out the work under concession, or in its absence, by one formed *ad hoc*. The cost is apportioned between the several landowners and collected as part of the consortial contributions by the procedure already described in the case of landowners' contributions to costs. Should there be no consortium, the Government itself takes the necessary steps.

* * * * *

3. EXECUTION AND FINANCING OF PRIVATE LAND-RECLAMATION AND LAND IMPROVEMENT WORKS

In executing works carried out in fulfilment of land-reclamation obligations or as voluntarily improvements landowners can, in case of need, apply for agrarian improvement credit.

Prior to the Act of February 1933 there was no definite co-ordination between the legislation on land-reclamation and on agrarian credit. Nevertheless, as for certain land improvements the former provided government subsidies, while privileged loans on the lines already



MACCARESE. HORSE-BREEDING.
Courtesy of "Maccarse Società Anonima di Bonifiche" (photo Vasari).

described, were available for all, it was decided that, with few exceptions, the two forms of assistance should not be cumulative. So if a landowner who obtained a subsidy also obtained a loan, the Government made no contribution toward interest charges. If, on the other hand, he obtained a loan on favoured conditions, then he was not entitled to a subsidy.

This situation was open to grave objections:

(a) the fact that some works were entitled to loans on favoured conditions but not to a subsidy, encouraged the owners to run into debt so as to enjoy the benefits provided. This held good even in cases when the landowner if he had applied for a subsidy instead of a loan, could have met the remaining costs out of his own savings;

(b) the benefit conferred by the Government in meeting interest charges on loans and that conferred by the grant of a subsidy, was not of equal value; and in cases in which either form of assistance was available the selection of one rather than the other was not determined by the need of having recourse to credit, but by the desire of obtaining from the Government the greater of two advantages. The Act of 1933 corrected this anomalous situation in the manner described in Chapter IV.

At present the works eligible, at the choice of the owner, either for loans enjoying government assistance in meeting interest charges, or for subsidies, are the same; the choice of one rather than the other does not modify the degree of assistance given, which is the same whether it takes the form of a subsidy, or of assistance in meeting interest charges, or of both. Consequently only those who really need credit apply for it; and it can be obtained either with the help of a government contribution towards interest charges, or without such contribution, should government assistance be preferred in the form of a grant.

The grants, consisting, as stated, in a percentage contribution to costs, are made after the works have been certified and they take the form of a lump sum payment or of annuities inclusive of interest charges and amortiza-

tion, which can be discounted in the manner described in the previous paragraphs.

The tendency, however, more especially in the case of subsidies of moderate size, is to pay down a lump sum, even when the credits assigned for the purpose are written into the budget in the form of annuities, in which case the Under-Secretariat discounts them in the manner described (see Parts 1 and 2 of this chapter) paying down a lump sum to the landowner.

We saw in Chapter V in which cases and within what limits works for which owners are responsible can be carried out by the consortia. This does not substantially modify the right of the owner to secure a subsidy or a loan on favoured conditions. It should however be noted that when the landowner does not advance to the consortium all the money required for carrying out the works, the latter may make a direct application for a loan, which in no case may exceed 60 per cent of the value of the land, increased by the value of the improvement, and reduced by the amount of previous mortgage loans.

The resultant credit held by the consortium against the owner of the improved lands, represented by the amounts loaned and the expenses met in carrying out the improvements, is secured by a special lien on the land, published by entry in a special register, ranking next to the lien held by the Government for the credits referred to in Article 1962 of the civil code,¹ but without prejudice to mortgage and other real claims previously inscribed.

Lastly we would mention that works for which the owners are responsible may sometimes be carried out by persons, other than the owners or holders of the lands in question, who are entitled to secure a subsidy or government assistance in meeting interest charges. For instance, irrigation works may be carried out by the person holding the water rights, even if he be not the owner of the lands irrigated, or electric current may be supplied to farms by the company installing a power-distributing system for rural districts.

¹ Land-taxes and other like charges.

In such cases, however, as the plants can be used for gainful purposes, by selling the water or the electric current to the farmers, the Ministry safeguards the interests of the latter by fixing terms and periodically revising rates, and it may also prescribe the procedure by which the plants may be purchased by the landowners concerned.

In the case of irrigation works the Ministry may require that the irrigated lands pay an improvement contribution.

* * * * *

4. STATISTICAL DATA

We will close this chapter with a general summary of the works authorized and executed for reclamation purposes from 1870, when Rome became the capital of United Italy, down to 1st July 1934.

COST IN PRESENT-DAY LIRE OF LAND-RECLAMATION WORKS FROM 1870
TO 1ST JULY 1934.

Financial Year.	Government Works.		Private Works subsidized by Government.		Total of both Government and Private Works.	
	Author-ized.	Executed.	Author-ized.	Executed.	Author-ized.	Executed.
Until 1921-22. . . .	millions. 3,071.6	millions. 1,782.7	millions. —	millions. —	millions. 3,071.6	millions. 1,782.7
Fascist era:						
Year I (1922-3) .	286	228.8	14.7	14.7	300.7	243.5
" II (1923-4) .	101.3	153.7	36.3	36.3	137.6	190.0
" III (1924-5) .	119	144.8	20.0	20.0	139.0	164.8
" IV (1925-6) .	157.7	187.1	48.3	48.3	205.0	235.4
" V (1926-7) .	263.5	199.9	88.0	88.0	351.5	287.9
" VI (1927-8) .	603.0	286.6	106.5	106.5	709.5	296.1
" VII (1928-9) .	565.1	380.8	130.4	130.4	695.5	511.2
" VIII (1929-30) .	775.4	659.9	255.7	255.7	1,031.1	915.6
" IX (1930-1) .	602.9	499.7	248.5	248.5	851.4	748.2
" X (1931-2) .	611.3	530.0	207.8	207.8	819.1	737.8
" XI (1932-3) .	518.5	554.4	285.7	285.7	804.2	840.1
" XII (1933-4) .	627.5	591.1	282.9	282.9	910.4	874.0
Grand Total	8,301.8	6,202.5	1,724.8	1,724.8	10,026.6	7,927.3
Twelve years of fascist era.	5,230.2	4,419.8	1,724.8	1,724.8	6,955.0	6,144.6
Last five years	3,135.6	2,835.1	1,280.6	1,280.6	4,416.2	4,115.7

CHAPTER VII

SOME LAND-RECLAMATIONS DESCRIBED

GEOGRAPHICAL conditions vary greatly in Italy. In some zones climatic conditions are similar to those of the most northerly European countries while others enjoy a south lowland climate similar to that of North Africa. Between these two extremes lie a whole series of intermediate positions. Conditions arising from historical factors also vary widely from one region to another. For all these reasons integral land-reclamation assumes the most diverse aspects. Each reclamation circumscription has a character of its own which confers on it individuality, and gives rise to special technical problems with their several solutions, which afford a wide field for study. As we cannot, in this volume, explore the whole vast field we will briefly describe a few reclamations characteristic of the more important types.

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I. THE LITTORIA RECLAMATION ¹

While several forms of land-reclamation have radically

¹ See Senator Eng. Natale Prampolini, *La Bonifica dell'Agro Pontino*, 1933. Valentino Orsolini-Cencelli, *Le Paludi Pontine nella preistoria, nel mito nella leggenda nella storia nella letteratura nell'arte e nella scienza*, Opera Nazionale per i Combattenti, Officine dell'Istituto Italiano d'Arti Grafiche, Bergamo, 1934.

Enrico Fileni, *La bonifica di Littoria e di Sabaudia*. Dalla Nuova Antologia, 16th April 1934, Rome.

Don Gelasio Caetani, *The Story and the Legends of the Pontine Marshes*, in *National Geographical Magazine*, Vol. 45, No. 4, April 1924.

Le Grandi Bonifiche, Littoria (Agro Pontino); December 1932, of the *Rassegna Mensile Illustrata: Opere Pubbliche*, Rome.

Eugenio Casanova, *I precedenti storici, giuridici ed economici della legge per*

altered conditions in the Roman Ager,¹ a term applied to some 200,000 hectares of land surrounding Rome, the problem of the Pontine Ager has also been faced, and that district has been transformed into a new province, that of Littoria, by reclamation works, consisting mainly in drainage and land settlement.

la bonifica integrale con prefazione di Alberto de' Stefani, Milan, Fratelli Treves Editors, 1929.

Eng. Antonio Buongiorno, *Le Bonifiche Italiane, cenni storici, tecnici e statistici*; Annali dei Lavori Pubblici, 1926, Rome.

Attilio Rossi, *Terracina e la Palude Pontina*; Italia Artistica: Monografie illustrate, Istituto italiano d'Arti Grafiche, Editore, Bergamo.

F. Gregorovius, *Latin Summers and an Excursion in Umbria*, translated by Dorothea Roberts. Junior Army and Navy Stores, Ltd. London, 1902.

¹ "In the alluvial plain of the lower Tiber we find three reclamations carried out with the help of pumping stations, those of Ostia, Isola Sacra, Porto and Maccarese (in all over 20,000 hectares). The first of these was completed some years ago; the second has been carried out by the *Opera Nazionale dei Combattenti* which owns the land on which it has carried out agricultural conversions, dividing it up into farm lots, provided with irrigation waters, assigning part of it, cultivated as market gardens, in smallholdings to ex-servicemen; the last of the three reclamations has been carried out by a consortium of landowners who have not only drained, but have also irrigated the land, availing themselves for that purpose of water diverted from the Tiber. In this case a joint stock company, owning 5,000 hectares of the land, rapidly carried out bold agricultural conversions which have transformed the fever-breeding swamp of only a few years back into a series of 80 hectares farms raising arable crops, with irrigated meadows for the production of milk, the sandy zone along the sea-shore being planted with extensive vineyards.

"In the case of the lands at a higher elevation in the Roman Ager proper, the need was not for large-scale drainage, but for agricultural reclamation works and land settlement, organized with a view to putting a stop once and for all to the use of these lands as ranches for flocks and herds. Rapid and decisive progress has been made in this direction in the last decade, based on the special legislation enacted for this area. The road system has been extended and improved, the surface drainage regulated, many small irrigation plants have been introduced; villages and farm-centres have been built, grasslands which had not been ploughed for centuries have been broken up by machinery; the great *latifundia* have been divided into smaller units, equipped with houses, stables, etc., and brought, at least in part, under permanent cultivation, the chief products being wheat and milk. In the zones within easy reach of the city, market-gardening has been greatly extended, and in an environment in which hygienic conditions have become satisfactory, a permanent rural population is settling. In the last ten years the aspect of the Roman Campagna has radically changed."—A Serpieri, *Bonifica integrale e colonizzazione in La Legge sulla bonifica integrale nel secondo anno di applicazione*, p. 201.

See also Ministero dell'Economia Nazionale; Direzione Generale dell'Agricoltura, *L'Agro Romano nel primo Quinquennio Fascista*, Rome.

Our illustrations of the reclamations carried out by the Maccarese, *Società*

The Pontine Ager¹ comprises that portion of Latium which stretches from the slopes of the Lepini and Ausoni

Anonima di Bonifiche refer to those mentioned in this note. The reclamation is of an industrial type, all the units in which the total area of 5,000 hectares is divided, and all the branches of farming and the various activities for processing products, horse-breeding, poultry farming, etc., being under one central management.

In the same circumscription of Porto and Maccarese lies the Prince Torlonia's estate, of which two photographs illustrate this volume. The lake seen in them, now dredged and embanked and in excellent condition, was the ancient sea-port of Rome opened by the Emperor Claudius and modified by Trajan.

¹ The Pontine Ager must have been formed in a very remote geological period by the filling up of the gulf with matter brought down from the mountains and by the action of the sea itself. Thus Monte Circeo, which was probably an island, must have been changed into a promontory, while its original status of island and the fact that it still looks like one when seen from a distance, would account for the legend that sees in it the island of the enchantress Circe where Homer makes Ulysses take shelter during his journeyings along the Tyrrhenian sea coast. Homer narrates that the ships of Ulysses and his companions after flying from the island of Eolis driven by the winds which had been carelessly allowed to escape from the bags given by Æolus, arrived first at the land of Lamus (identified by the Latins with Terracina), from which they fled, pursued by fresh misfortunes and by the fierceness of the inhabitants, the gigantic Laestrygonæ, taking refuge in the neighbouring island of the enchantress, Queen Circe. Here the companions of Ulysses, on landing to explore the island, were enticed into the sumptuous palace of the witch who gave them a magic philtre which transformed them into swine, until Ulysses protected by the helmet given him by Mercury against the incantations of the witch, came to their assistance and compelled her to deliver them.

Reliable information is lacking on the conditions of the Pontine Ager in the time of the Volsci. Some are of opinion that it was the seat of a prosperous agricultural community until the sixth and fifth centuries B.C., and that many towns were scattered over it. Pliny refers to twenty-four which in his day were no longer existent.

The Volsci opposed a fierce resistance to the advance of the Romans who waged war against them for two centuries before subduing them (from the seventh to the beginning of the fourth century B.C.), and then the Pontine Ager, either as the result of earthquakes or other natural causes, or because depopulation, the neglect of the works for the upkeep of the land, the denudation of the mountain sides, the spread of sand caused by the sea and other causes of hydric disorder, acting in conjunction with malaria which first appeared at a date unknown, led to an increasingly serious and difficult situation, producing the conditions which have been characteristic of the zone until the completion of the recent reclamation works.

The study of the several attempts made over a period of more than 2,000 years to reclaim the Pontine marshes is interesting. Those of which we have historic knowledge began shortly after the building of the Appian Way, the "Regina Viarum" (312 B.C.), by the Censor Appius Claudius so as to connect Rome with wealthy Capua and fertile Campania; subsequently prolonged, it became the main artery of Roman expansion towards the East.

During the first centuries of Roman occupation a cut was made through the

mountains to the sea. It is closed in by those mountains, the Albine hills, and the sea, which it coasts from

quarternary dune to the level of the sea, of a width of nearly 3 miles, and a height of some 100 feet. It is not known to whom this huge work should be ascribed; it must certainly have cost an immense amount of money and labour. It is known as Rivo Martino.

The first attempt at reclamation of which details are available was that made about the year 185 B.C. by the Consul Marcus Cornelius Cetegus, who had a ditch excavated along the Appian Way and enacted laws for dredging and clearing the water-courses. But the work of Cetegus was soon neglected, the swamps again spread, and the Appian Way was once more subject to flooding and obstructions.

Julius Cæsar was authorized by the Senate to carry out a vast reclamation scheme which comprised the excavation of a canal from Ostia to Terracina, into which the waters of the Lower Tiber were to have been diverted and which would have connected Rome with the seaport of Terracina. The assassination of Cæsar put a stop to the project.

Nerva (A.D. 54-68) undertook works for repairing the Appian Way, completed by Trajan (A.D. 98-117), who paved that road and protected it by dredging the ditch excavated by Cetegus which had gradually filled up, and by opening a way to the sea through which the rivers might discharge their waters.

Then came the decline of the Roman Empire and no further attempts at reclamation were made until the close of the fifth century, when Theodoric, King of the Ostrogoths, granted the patrician Decius the right to carry out reclamation works, awarding him the lands he should drain. The Roman ditches were then repaired, their discharge outlets reopened, and the river beds corrected. In the course of time these works decayed and a new period of neglect ensued during which, as in the previous age, the inhabitants of the region made conditions worse by their strife and jealousies and by the obstructions opposed to the outflow of the rivers and streams which obstructions were placed there or, at least, not removed during these several periods by the population engaged in fishing.

During the period of Papal dominion important attempts at reclamation were made, of which we will give a list, omitting all the other attempts or measures of little importance belonging to that period.

Pope Leo X (1513-21) granted the work of reclaiming the marshes to his brother Giuliano dei Medici, who by diverting the mouth of the Ufente into a bed excavated near the Torre di Badino, succeeded in emptying into the sea considerable quantities of flood waters. It is believed that Leonardo da Vinci may have suggested the opening of the new mouth near Badino, as it is noted on the plan of the Pontine marshes drawn up by him. On the death of Giuliano, the works he had carried out were destroyed by the local population.

Sixtus V (1586-90) entrusted to Ascanio Fenizi, an architect of Urbino, reclamation works which relied chiefly on the utilization of the Fiume Antico, whose bed was deepened and the outlet near Torre Olevola reopened so as to afford a great emissary for the waters of the Cisterna and Ninfa canals. By this means a large area was drained and the Fiume Antico was renamed Fiume Sisto. The old canals were also reopened, as also the outlet at Badino. After the Pope's death, caused by malaria probably contracted during his visits to

Torre Astura to Terracina. It covers an area of 75,000 hectares. The apparently level surface is irregular,

the works, the scheme was abandoned. It would seem that the gradient which Fenizi gave the canals was insufficient, and the embankment of the Sixtine canal was not solid enough, and when the dredging of the canals and the upkeep of the several works was neglected, the drained lands were once more invaded by the waters.

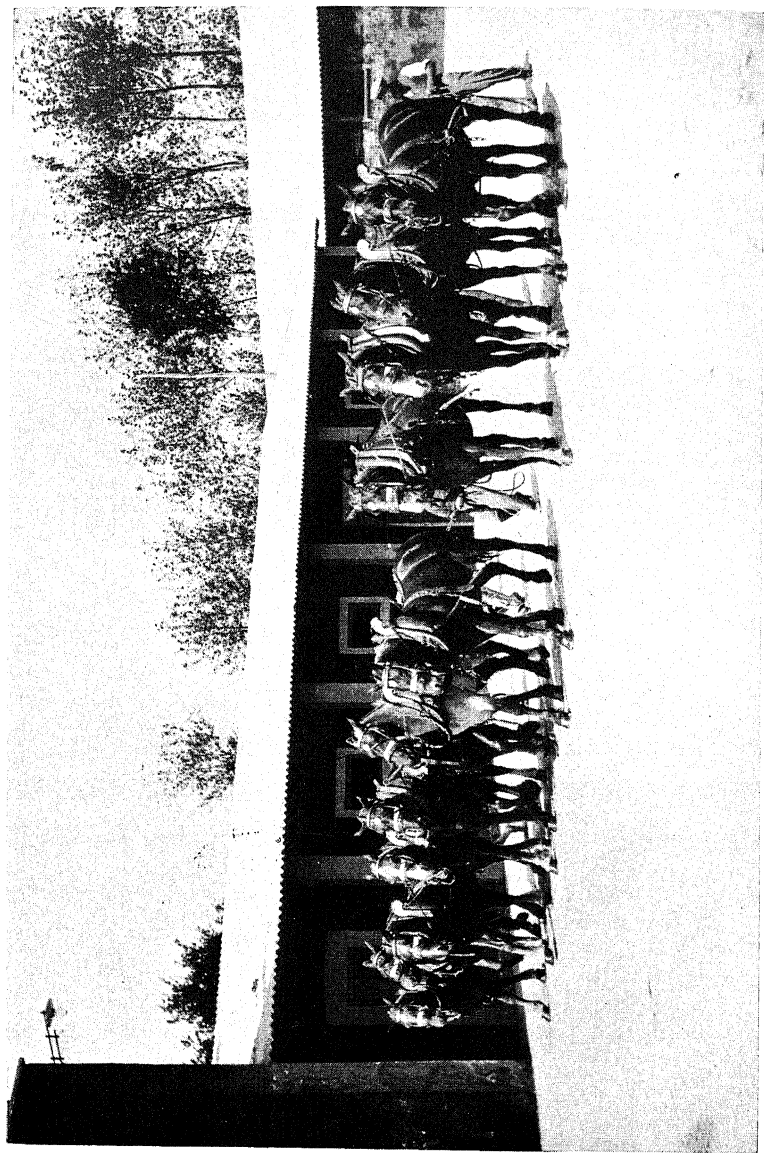
The fate of the several other attempts made by Dutch engineers, who were considered particularly competent in this line of work, was no better. Of the various efforts made by the Dutch two deserve mention. One, carried out by De Wit during the pontificate of Urban VIII (1623-44), purposed carrying all the water to the sea by means of a great navigable canal which was to pass through the Rivo Martino, but this plan was not carried out owing to the death of De Wit. The other, planned by the Dutchman Cornelius Meyer, who was replaced on his death by his son, Otto Meyer, following the advice of the hydraulic engineer, Innocenzo Boschi, was to have revived the works carried out by Sixtus V. This plan was however given up owing to the hostility displayed by the population, and the results obtained were lost.

The last attempt was made by Pope Pius VI in 1777, and it was the most successful. The Pope himself gave to Gaetano Rappini, a talented hydraulic engineer of Bologna, the main outlines of the plan, which consisted in excavating a canal in a straight line, afterwards referred to as the Pia Line, running parallel to the Appian Way, with smaller canals running into it on either side, and in enlarging the Portatore canal as far as Badino. The Pia Line was to collect all the waters on the right and left and to carry them to the sea through the Badino outlet. Subsequently, when experience showed the danger of the Linea Pia filling up with earth, part of the waters were deviated into the old Sixtine canal, which was embanked and put in order. The waters of the Ninfeo, the Teppia, and the Cisterna canal were discharged into it. At the same time the Via Appia was repaired and elms and mulberry trees were planted on either side. Rules were laid down for dredging the canals, and the upkeep of the reclamation works and of the drained lands was granted to perpetual leaseholders. The reclamation seemed to be within sight. But the failure to separate the mountain waters from those of the plain, the instable character of a large part of the lands through which the canals ran, inadequate estimates and the unmethodical upkeep of the canals caused the works to deteriorate and the flood waters regained the upper hand.

As a mere matter of historic interest we may mention that Napoleon was interested in the Pontine Marshes and appointed in September 1810 a Commission to examine the ground and propose measures for improving the Pontine and the Roman Ager.

We will close this note by quoting from the description given by Gregorovius of Ninfa, which space forbids us from giving in full. Ninfa has remained as he described it down to our own day, summing up in its tragic history all the enchanting beauty of the Pontine landscape inextricably allied to the inexorable destruction caused by malaria:

"... the windows of which disclosed to us all the glories of the Marittima. Looking over the edge of the precipice, which here falls sheer down to the plain, our eyes fell upon a great ring of ivy-mantled walls, within which lay curious mounds and hillocks, apparently made of flowers. Grey towers stood up out



MACCARESE. DRAUGHT-HORSES.
Courtesy of "Maccarese Società Anonima di Bonifiche" (photo Vasari).

crossed by rivers and torrents, and traversed by a quarternary dune stretching from the small ancient town of Cori to the promontory of Monte Circeo. Along the sea-board lie the lakes of Fogliano, Monaci, Caprolace, and Paola.

The presence of this dune and others along the coast and the fact that some of the land is below sea-level, place great difficulties in the way of surface drainage, difficulties aggravated by the fact that besides the rainfall and the springs rising in the plain, it receives the rivers rising in the foot-hills and those rushing down from the moun-

of them, ruins, all garlanded with green, and from the midst of this strange circle we could see a silver stream hurrying forth, and traversing the Pontine Marshes till it vanished in a lake lying golden in the sunlight, not far from the seashore.

"I asked, amazed, what that most puzzling great garland of flowers, that mysterious green ring, could be. 'Nympha, Nympha,' said our host. Nympha! then that is the Pompeii of the Middle Ages, buried in the Marshes—that city of the dead, ghostly, silent. And this afternoon we should wander through it, at the hour when fair Selene rises behind the Cyclopean stones of Norba."

* * * * *

"The impression this ivied town makes as you enter it is indescribable. You wander through its grassy, flower-decked streets and between its verdant walls. Save the wind, which is whispering in the leaves of the trees, not a sound is heard except the croak of a raven up in the tower, the rushing of the stream, the rustling of the tall reeds by the pond, and the melodious singing and sighing of the blades of grass all round."

* * * * *

"Flowers crowd in through all the streets."

* * * * *

"The walls of the town are still standing, circling it all round like a ring, every stone draped in ivy. Here and there peeps out a broken pinnacle—a square ruined tower. The principal gates of the town are barred and barricaded by wild vine, ivy, and sprays of bramble, as if the flowers in Nympha feared some foe who, like the Saracens of old, might try to force his way in by night. So they intrench themselves, as the men of Nympha did against the mercenaries of Barbarossa or of the Duke of Alva, behind their walls, for mayhap some night might come a wild horde of meteors and will-o'-the-wisps from the marshes to storm this enchanted city and carry off her flower-spirits to live with them in their native swamps."

* * * * *

(*Latin Summers and an Excursion in Umbria*, by Ferdinand Gregorovius, translated by Dorothea Roberts, Junior Army & Navy Stores, Ltd., London, 1902.)

tains, denuded to a large extent of trees and subject to exceptional atmospheric precipitations, which in a few hours' time empty huge masses of water into the underlying plains. For instance, in 1928 at Cori (basin of the Ninfa and the Teppia) a fall of 103 mm. was registered in 3 hours and one of 115 mm. in six hours; in 1930 at the Circeo 110 mm.; and at Vallecorsa (Amaseno) 148 mm. fall in 24 hours.

The most important streams and torrents of the Pontine Ager are the torbid and impetuous Teppia, the Ninfa, the Ufente, and the Amaseno.

Besides those of a general character, other special difficulties had to be overcome, for instance:

(a) over a wide area traversed by the Ufente, the stratum of peat and shifting bog is more than 60 metres deep and for more than 150 years the banks of this stream have been consolidated each year with earthworks mixed with faggots, but have each year been swallowed up;

(b) When bog-lands rich in organic matter are dried, atmospheric action decomposes the organic matter they contain by a slow process of combustion which results in marked soil-compression, so much so that in a recently reclaimed area the level of the soil has lowered 40 centimetres in three years;

(c) The growth of weeds in water-courses throughout the year, but more especially during the summer months, is such as to raise the level of the water by as much as 5 centimetres a day, leading to overflows if the streams are not methodically cleared so as to keep the bed in good condition.¹

These physical difficulties were accompanied by others of a historical, social, and economic character which have for centuries stood in the way of reclamation. Thus the Pontine Ager prior to the present reclamation, covered a vast zone consisting partly of permanent swamps, lakes,

¹ Until a few years back this was done by turning herds of buffalo into the canals, who by tramping the bed tore up the weeds. Gregorovius (*op. cit.*) gives a picturesque description of this process. To-day the streams are cleared, when necessary, by machinery.

and dunes, a large portion of the other lands being under water in the winter months and drying during the fine season when they were clothed with luxurious vegetation. These lands were used as ranches for cattle, sheep, and horses and the scanty population which came down from the neighbouring hill-towns to look after the herds and flocks, cut wood, and turn it into charcoal, or sow grain crops on small enclosed lots called "*lestre*", used to depart as soon as the crops were harvested to escape the deadly malarial fever season. The "*lestre*" consisted of about a hundred scattered lots, of 1-10 hectares, on which for untold years shepherds and herdsmen, coming from Terracina and more especially from the distant hill-villages of the Lepini and the Ciociaria, had squatted. These lots were generally under grass, sometimes under cereals or truck crops. Nearly all these families, most of them chronic sufferers from malaria, returned in the summer to their villages to escape the deadly *perniciosa*.

An exception to this rule were the "fields" of Sermoneta, Sezze, and Priverno, covering some hundreds of hectares in the foothills, divided up into very small holdings of not more than half a hectare or one hectare each, farmed intensively by peasant owners under non-irrigated truck crops, artichokes and cereals, the owners coming and going each day to and from their villages, at a distance of 4-5 kilometres from Sermoneta and of 10-20 from Sezze and Priverno.

The integral reclamation carried out by the Fascist Government consists of three main phases:

(a) The general reclamation works carried out through the agency of two consortia of landowners, that of Littoria (formed by the ex-consortia of Piscinara and No. 5 of the Roman Ager), and that of Pontino, united under the same president.

(b) Land settlement and agricultural conversion, the building of the towns of Littoria, Sabaudia, and Pontinia, and other works carried out by the ex-Serviceman's Foundation, assisted by the Commissariat for Internal Migrations and other Bodies.

(c) Agricultural conversion works which have been or are being carried out by the landowners.

In addition to those carried out in the plain there are the works for regulating the respective mountain water-basins (78,600 hectares) entrusted to the Forestry Militia.

(a) In considering the works carried out by the landowners' consortia it should be remembered that the Pontine Ager is divided into two circumscriptions, the Pontine circumscription, and that of Littoria, the dividing line being the Ninfa-Sixtine river.

The first step taken in the present reclamation works was that of making a new and complete survey of the land. For this purpose a map on the scale of 1 : 5,000 was made, showing all the elevations, with curves for the levels, drawn at half a metre one from the other. The two consortia concerned entrusted this work to the Army Geographical Institute, which worked at it from 1926 to 1930. This survey explained the failure of many previous efforts at reclaiming the district.

The Littoria consortium began its work by building 266 kilometres of road to open up the area to be reclaimed, and by organizing 9 villages, thus from the start making the whole reclamation area of easy access and permitting the workers engaged thereon to settle permanently in the 135 buildings thus built, all carefully provided with the requisite hygienic protection.

The next step was to bring together the installations, machinery, implements, etc., required for carrying out in a few years time the vast works undertaken.

One hundred and fifty kilometres of narrow-gauge railway were laid, of which 40 were electrified, provided with 39 engines and 1,400 trucks for distributing the building material to all the yards within the zone.

Quarries were worked to provide road-metal and stone for building and engineering-works carried out by the consortium and the other bodies and private owners, their output rising to the impressive figure of 3 million cubic metres of stone.

Powerful mechanical excavators of various kinds, pumps of all descriptions and capacity, autovehicles for road transports were provided.

The waters of the Littoria territory were separated into high, middle, and low waters. The high, rushing down from the surrounding mountains, have been collected into a main conduit known as the Mussolini Canal, 38 kilometres long, with a capacity of over 450 cubic metres per second, emptying into the sea.

The middle waters are collected in another canal, 32 kilometres long, which starting near the source of the Ninfa stream runs first towards Littoria, then coasts the quarternary dune which it crosses at the cutting of Rivo Martino (see footnote on p. 135), emptying into the sea between the lakes Monaci and Caprolace and forming the canal-port of Borgo Grappa. The low waters are collected in a series of conduits emptying into a main canal 28 kilometres long, for part of which the Sixtine canal was reconditioned, and emptying into the sea at Torre Olevola. The Sixtine canal also receives the waters from the eastern slope of the quaternary dune, those of the western slope being carried into the conduit for the middle waters by two large affluents, the Nocchia and the Cicerchia. The main canals are fed by over 700 kilometres of secondary affluents, in making which 5 million cubic metres of soil were excavated and innumerable engineering works, such as bridges, sluices, weirs, drains, pipes, etc., were carried out.

Along the coast zone, the shores of the lakes have been put in good condition and the lakes themselves have been dredged, the material raised being used to fill in the holes in their vicinity, the banks against which the waters flow have been faced with brickwork so as to prevent bull-rushes from growing up again, and the whole zone has been made healthy. By opening communications between the lakes and the sea the salt content of the lake waters can be regulated to meet the needs of the fish preserves. The marshy zones between the lakes have been reclaimed, partly by filling in holes, and partly by

draining them with the help of 4 pumping stations installed in the zone.

Some zones are already irrigated, partly by raising the water of the Portatore di Badino, and partly by using the spring waters of the Ninfa to irrigate the coast zone lying between the lakes Monaci and Caprolace.

Later on, the full utilization of the springs of the Ninfa Lake will make it possible to irrigate some 20,000 hectares within their radius by means of a system of distributing canals which will radiate from Ninfa to the territory on the eastern side of the quaternary dune, running parallel to the Sixtine river.

The execution of all these works has employed a large body of men, the number of days of work attaining in 1934 a total of 11,400,000.

The hydraulic protection of the Pontine circumscription against the waters descending from the mountains, which, overflowing their beds and crossing the underlying lands to reach the sea, cause landslips and floods, has been secured by correcting the bed of the Amaseno torrent. It will be used as the emissary of a canal surrounding the zone which will relieve the reclamation canals in the plain of the waters running down from the slopes of the Lepini Mountains which overlook the plain. In dealing with the waters rising in the plain itself, the territory has been divided into basins for the several elevations and receiving canals, so as to separate the high from the low-level waters. The high-level waters are taken respectively into the Ufente river, which has been put in good condition, and into the Botte Canal which has been modified. The low waters are sucked up by pumping stations.

Of these the most important is that of Mazzocchio, which is one of the largest built in Italy; it drains the 9,000 hectares of the former Quartaccio swamp. It is equipped with seven pumps run by 500 h.p. engines, each of which can raise from 4,000 to 6,000 litres per second for a height of 4-5 metres.

The high-level waters, stored in the main reservoirs,

will be used for irrigation purposes and distributed through a special system of hydrants and canals.

The lack of roads was severely felt. From the Appian Way, which in some of its sectors was often flooded, branched off to the left the provincial roads to Ninfa-Sermoneta, Sezze, and Fossanova-Priverno, and to the right the communal road leading to the Selva (wood) and to the road coasting the seashore from Terracina to Circeo. Apart from these there were only paths through fields which were almost impracticable, which became quite unusable whenever it rained, and which disappeared entirely during the winter season. Now, not only is the plain connected up directly with the communes surrounding it, but it is traversed by a complete system of roads radiating out to the new centres of population, including a new road coasting the seashore and commanding enchanting views.

Drinking water, taken from a big spring situated near the Rome-Naples railway line, is raised to an underground reservoir half-way up the mountain. Omitting special reference to works of minor importance, mention should be made of those for regulating the outlet to the sea near Badino by enlarging the ancient emissary which discharges there, the opening of a thermo-electric power station of 3,000 k.w. as a reserve station for running the pumps, the installation of an electric current distributing system for lighting purposes, for running the pumping stations, and for raising the irrigation waters, which will also be used later on for electrifying the farms.

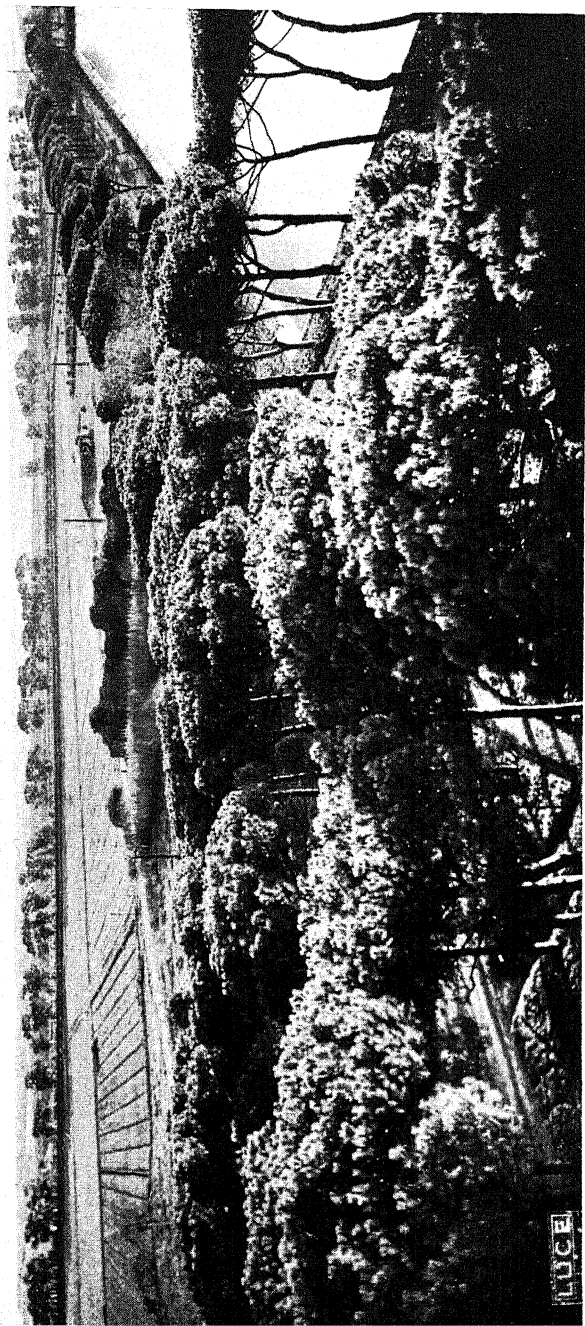
(b) The ex-Serviceman's Foundation (*Opera Nazionale Combattenti*) has obtained grants for the settlement and agricultural conversion of three lots of land, the first covering an area of 10,500 hectares, the second of 14,100 hectares, and the third of 17,000 hectares, in all 41,600 hectares. Work was begun on the first lot on 7th November 1931, and on 28th October 1935, the whole programme will be completed. It can be briefly described by saying that it consists in building three towns: Littoria, now the county-town of the new province

of that name; Sabaudia already a charming little town on the shores of the Lago di Paola; and Pontinia which will be inaugurated on the 28th October 1935; and in bringing the lands under cultivation by organizing farms, each entrusted to an ex-Serviceman and his family. Rural communities centring around a village with its church, school, sports' field, farm management centre, shops, warehouses, etc., are thus formed. Each of these villages has been named after one of the places which were the scene of important actions during the Great War.

The size of the farms varies from 10-30 hectares according to the quality of the land. Each has a residential farmhouse, stabling for 10 head of cattle, a poultry run, pig-stye, well, etc.

The Foundation erects all the buildings, breaks the land, provides for its drainage by opening canals and ditches the length of which runs into thousands of kilometres, provides the livestock, and then delivers each new farm to a family. These families are brought from congested districts to the new lands in the province of Littoria by the Commissariat for Internal Migrations. As they have to learn by experience the needs of the new farming environment to which they are brought, and as they possess no capital of their own, they take the farm on the crop-sharing plan, receiving each month advances in the shape of supplies and cash allowances from the Foundation, which directs the management of the farm. When the head of the family has acquired the necessary experience and has returned the advances made by the Foundation, an agreement is drawn up under which he pays the Foundation for the farm (land, improvements, and livestock) in fifteen annual instalments, covering the capital and interest at the official bank rate.

As soon as the farms are ready they are distributed in groups of 130 each, centring round one of the above-mentioned villages. A farm management office, placed under a manager holding an agricultural degree, is



PRINCE TORLONIA'S ESTATE IN THE RECLAIMED AREA OF PORTO AND MACCARESE.
Courtesy of Istituto Nazionale LUCE.

opened in each of these villages for the whole duration of the crop-sharing leases. These offices direct the farmers in the management of the farm on lines laid down by the Foundation. The farming is based on a rotation of grass, forage crops and cereals (a small portion of each farm being set aside for fruit-trees, vines, and pollard mulberries), and on cattle-raising, the rustic Maremma breed of draft-cattle being that preferred. Poultry and pigs are raised for domestic needs, and there is a small market garden for home requirements.

The cost of agricultural reclamation, inclusive of land, roads, buildings, stump-extracting, breaking up the land, conditioning it, supplying water, etc., is estimated at 7,000 lire per hectare for the smaller farms and falls to 2,500 lire per hectare for the larger ones in less fertile zones. Therefore to become owners of their lands the farmers have to pay, for a period of 15 years, an annual rent, inclusive of interest and sinking-fund, fluctuating between 630 and 200 lire per hectare. These sums can be reduced to 430 and 150 lire respectively if the purchase period be extended from 15-25 years.

Besides this, the farm owner must pay a rent corresponding to the cost of upkeep and amortization of the drainage works, averaging, in the territories of Littoria and Sabaudia, 70 lire per hectare.

It goes without saying that the expenditure reimbursed by the farmers, does not cover that made by the Treasury. That expenditure is the Government's contribution to the cost of integral land-reclamation, made in the measure and on the lines described in Chapters IV and V.

Obviously the building of the towns and the opening of the farms entails a vast amount of various work besides that of building the roads, canals, and other installations, all of which has to be carried out by the *Opera Nazionale Combattenti*.

(c) As regards agricultural conversions by the land-owners, it should be noted that the circumscriptions in the Pontine Ager comprise estates collectively owned by rural communes and communities (*università*), part of

which are partitioned among the landowners, and part ceded for land settlement. Among the initiatives taken by such collective bodies, reference should be made to those of the agrarian communities of Sermoneta and Cisterna which have erected 228 farmhouses on farms of 7-8 hectares each.

The agricultural conversions undertaken by private owners are of various kinds, of varying importance, and have attained varying degrees of development. All the works carried out by the landowners of the district are now, however, required to conform to the following rules: (1) the use of the land for grazing or for discontinuous seeding must be totally replaced by crop-rotation, and the hydro-agrarian conditions must be such as to eliminate all danger of malaria; (2) the land must be divided into farms of a given maximum size, requiring a farm family with a fixed minimum number of working members per unit of area, proportionate to the fertility of the soil; (3) a fixed minimum weight of cattle must be kept on each hectare of land. The owners send in their plans for reconditioning their estates to the Ministry of Agriculture, through the consortium, and they are approved in so far as they conform to the above requirements. If the guarantees they offer are satisfactory, they are financed with loans granted on privileged conditions. The fact that most of the Pontine Ager belongs to the *Opera Nazionale dei Combattenti*, which is settling it under intensive farming at a rapid rate, has led to similar conditions as to mode of cultivation and time of execution being laid down for the private owners.

Professor E. Fileni, in the article quoted in our note 1 to page 132, gives the following interesting particulars relating to the control of malaria:

The protection against malaria and the efforts made to eliminate that disease, formerly entrusted to a special body, and now to the Italian Red Cross, and subject to the supervision of the Ministry of the Interior, have been energetic and untiring. Consequently, and notwithstanding the difficulties caused by the failure of a constantly shifting mass of workers to grasp the need of prophy-

lactic measures, cases of malaria have been relatively few. In 1930, 3.3 per cent of the 5,000 inhabitants and workers present in the zone were affected; in 1931, 2.4 per cent of the 5,500 inhabitants; in 1932 4.8 per cent of 14,106 inhabitants. In 1933, on an average population of 41,026 inhabitants, there were 2.09 per cent cases of malaria, of which only 3 died in the zone, and 11 in hospitals outside it. The great majority of the cases of malaria occur among the reclamation workers; among the farmers settled on the land there were no new cases in 1932 and only 11 in 1933.

These results have exceeded expectations. And this is greatly to the credit of the protective measures taken, and also to the credit of the totalitarian and extremely rapid way in which the Fascist government is carrying out integral land-reclamation. The farmer and the plough, overwhelmed when struggling singly, lost in the immense stretch of marshes in order to follow a vain mirage of reclamation, have succeeded in destroying 100 per cent of the malaria-carrying mosquitoes now that masses of them are engaged in breaking up the new lands and in peopling the whole enemy zone.

* * * * *

2. RECLAMATIONS ON THE LOWER PIAVE ¹

In Chapter II, page 31, we noted the difference between "protective" land-reclamation works, and "transformation" reclamations, and it was shown that a definite line cannot be drawn between the two, as we frequently find, in one and the same circumscription, reclamation works carried out partly for protection and partly with a view to agricultural conversions. Not infrequently the two purposes are associated in one scheme. We shall therefore describe in this No. 2 reclamation works of a definitely protective character, associated to some extent with agricultural conversion works, having already dealt in the No. 1, with the Littoria reclamation in which land-reclamation and agricultural conversion are so closely associated. The reclamation

¹ See Vittorio Ronchi and Emiliano Carnaroli, *Le bonifiche del Basso Piave, in Italia Agricola*, Year, 66, No. 11, Nov. 1929, VIII, Piacenza, p. 769. *Con-sorzi di Bonifica Riuniti di San Donà di Piave*, Venice, Officine Grafiche Carlo Ferrari, 1927.

works on the Lower Piave are also of interest, as they are representative of the vast activities carried out in the Venetian-Emilian region.¹

¹ Professor Arrigo Serpieri gives the following description of the characteristics of the reclamation works in this very important region:

"The most extensive Italian territory under reclamation is that opening, like a great fan, covering an area of nearly one million hectares, to the right and left of the Po, stretching on one side across lower Venetia to the Isonzo, and on the other extending along the foothills of the Emilian Appenines as far as the Rubicon. Starting in the most remote ages and continuing through the period of the Venetian Republic, the *Signorie* of the Gonzagas, the Bentivoglios, the Estensi, etc., down to that of Napoleon, this work of centuries had already regulated the régime of the waters and created the local consortia to keep it up. A memorable institution was that of the *Magistrato dei Beni inculti* (Uncultivated estates Board), set up by the *Serenissima* for regulating water courses and reclaiming lands, revived later on as that *Magistrato delle Acque* (Water Board) of which Venice is still legitimately proud.

"But, notwithstanding these ancient land-reclamation works the Kingdom of Italy found wide zones in the Venetian-Emilian region still requiring protection against ill-regulated water courses.

"In the last few pre-war decades, and again after the parenthesis of the hostilities (when many of the land-reclamation works in Venetia were destroyed for defensive purposes), the work was resumed and has been carried on with increased activity since the beginning of the Fascist Era.

"The following particulars refer to typical modes of reclaiming these lands which are below sea level and below the level of the embanked water-courses which traverse them on an inclined plane, and whose natural outlet is sometimes obstructed by sand dunes. For these reasons the outflow of the waters is either impossible, or else discontinuous, being dependent on the high-water seasons of the basins into which they empty. The result is that constantly, or else over more or less lengthy periods of the year, the waters entering the circumscription rise to a level which makes the land of little use.

"The conditions prevailing on these lands vary: some of those along the sea-coast are just salty depressions; some are marshes only producing litter for bedding down animals, some are poor grasslands of inferior quality, subject to flooding and freezing for more or less lengthy periods; some are arable lands but the difference between the level of the waters at high tide and that of the lowest sections of the land is insufficient, and causing the surface drainage to be deficient over more or less lengthy periods, restricting the choice of crops which can be grown, and reducing or endangering their yield. Frequently within one and the same land-reclamation circumscription more than one of the conditions above described are found, as a result of the varying altitudes of the various zones.

"In such cases, drainage is the fundamental feature of the reclamation, the purpose being to enable the water to flow off regularly and to secure an adequate difference between high-water and low-land levels. This is done by lowering the level of the water, either by pumping it, at fixed periods, into an overflow reservoir placed at a higher level, or, when possible, by arranging for the main drainage canal to empty into a basin deep enough to receive them, sometimes—but in the districts we are considering this is rarely possible—the level of the

The land-reclamation territory on the Lower Piave is bounded by the Rivers Taglio di Sile, Piave Vecchio, Livenza-Livenza Morta, and by the sea. It occupies a zone formerly covered by the lagoons of Equilio, Torre di Fino and Eraclea. The Venetian dogeate arose here with Paoluccio Anafesto, the first doge, who after long struggles transferred his seat from Eraclea to Malamocco, and afterwards to Venice.

The Venetian Republic always devoted close attention and study to the water and lagoon system of this region. Towards the end of the sixteenth century the Piave was deviated so as to empty into the sea near Cortellazzo, while the waters of the Sile were diverted into the old bed of the Piave.

land is raised by letting the soil brought down by the streams or rivers accumulate thereon.

"When the circumscription has been provided with a regular drainage system—a task which is sometimes associated with hygienic measures for the suppression of malaria—the so-called agricultural reclamation can be started. This varies according to the initial conditions prevailing on the land fluctuating between two extreme cases; in one the reclamation merely consists in intensifying forms of agriculture already practised on the land, sometimes by the introduction of more profitable crops (such, for instance, as vines, or industrial crops such as sugar beets), and always by taking steps to secure larger and steadier yields. In the other case, lands lying waste or nearly so, become centres for up building a new rural life by providing roads, houses, aqueducts, and all other living requirements, and bringing the fallow land under cultivation. Not infrequently all these different kinds of agricultural reclamation are found in one and the same land-reclamation circumscription, as a result of the different altitudes of the several zones comprised therein.

"Almost everywhere, in the region under consideration, the final object in view is the division of the land into farm units, each of which is assigned for cultivation to a farmer and his family. Generally, however, this ultimate goal is reached by successive stages. Before securing the small farm with diversified arable and tree crops, stocked and arranged so as to provide sufficient work for the support of a peasant family, the land as a rule passes through intermediate phases during which it is cultivated in larger units, with a limited number of permanent workers assisted by a large number of non-resident labourers who are often entitled however to a share of certain crops.

"As a result of the serious losses caused on many reclaimed areas by drought and the scarcity of water for domestic purposes and the needs of livestock, efforts have been made recently to meet domestic and other needs, and to revive the crops when the drought is most severely felt, and sometimes to secure systematic and continuous irrigation during the summer months."—A. Serpieri, *Bonifica integrale e colonizzazione*, in *La Legge sulla Bonifica integrale nel secondo anno di applicazione*, p. 201.

The land-reclamation area is now divided between seven consortia, as follows:

CONSORTIA AND LAND-RECLAMATION AREAS ON THE LOWER PIAVE

	Hectares
Capo Sile	4,217
Cava Zuccherina, 1st Basin	5,800
" " 2nd "	2,415
Caseratta	1,915
Lower Cirkogno	781
Bella Madonna	6,123
Upper Ongaro	3,365
Lower Ongaro, 1st Basin	11,644
" " 2nd "	1,869
Total area of the consortia	<u>38,129</u>

The present reclamation works were begun in 1903, when the consortium of the Upper Ongaro got to work. At that time the area consisted of:

Cultivated lands	11,508 hectares
Swampy lands.	26,621 "
Total	<u>38,129</u> "

The Upper Ongaro was the first reclamation scheme carried out in this region. In the year in which the work was started, when considerable progress had been made and the steam pumping station had begun to work, a breakdown in the embankment of the Piave caused the whole area to be flooded. Work was resumed and the reclamation was completed in 1908. But a few years after the pumping station got to work serious drainage defects were noted, caused by soil compression, which exceeded what had been foreseen, and by the inadequacy of the rainfall coefficient on the basis of which the general reclamation plan had been drawn up.

To offset these defects an additional Diesel motor-pump was provided in 1909, and in 1915 one of the steam groups was replaced by an electric pumping station raising 6,000 litres per second.

During the war the works were severely injured, more especially in November 1918, when the pumping station was destroyed. It has since been rebuilt and the drainage works thoroughly overhauled. The circumscription now possesses a pumping station equipped with two centrifugal pumps raising respectively 7,000 and 3,100 litres per second, for a normal of 3 and a maximum of 4.50 metres, run by an electric motor of 450 h.p. and a Diesel engine of 260 h.p.

Other works: 37 Km. of canal, 5 Km. of road, 3 locks for distributing the waters of the Piave and of the Brian canal.

These works make it possible to ensure the full productive efficiency of the lands, notwithstanding the following altimetrical conditions:

Lands: more than 1 metre above average sea-level	834 hectares
„ between 0.75 m. and 0.00 m. above average sea-level	800 „
„ between 0.75 m. above and 1.50 below average sea-level.	1,731 „
Total area	<u>3,365</u> „ ¹

Of the lands belonging to the other consortia those belonging to the first and part of those belonging to the second basin of the consortium of Cava Zuccherina were drained before the war, and studies had been made for the works which the consortia of Bella Madonna and the Lower Ongaro intended carrying out, but during the war almost all the works which had been completed were destroyed. They have since been reconstructed and the others required for the several circumscriptions have been carried out.

The reclamation areas of the Lower Piave are now equipped with the following works:

¹ Supplementary Works to complete the drainage of the circumscription are now being carried out.

Pumping stations	.	.	.	.	No.	27
Centrifugal pumps	.	.	.	.	"	31
Electric engines	No. 14	for	.	.		4,637 h.p.
Diesel	"	"	14	"	.	5,572 "
Canals	.	.	.	.	.	330 Km.
Roads	.	.	.	.	.	137 "
Bridges, parapets, locks	.	.	.	.	No.	291
Locks for boats.	.	.	.	.	"	2,
Wells sunk	.	.	.	.	"	81

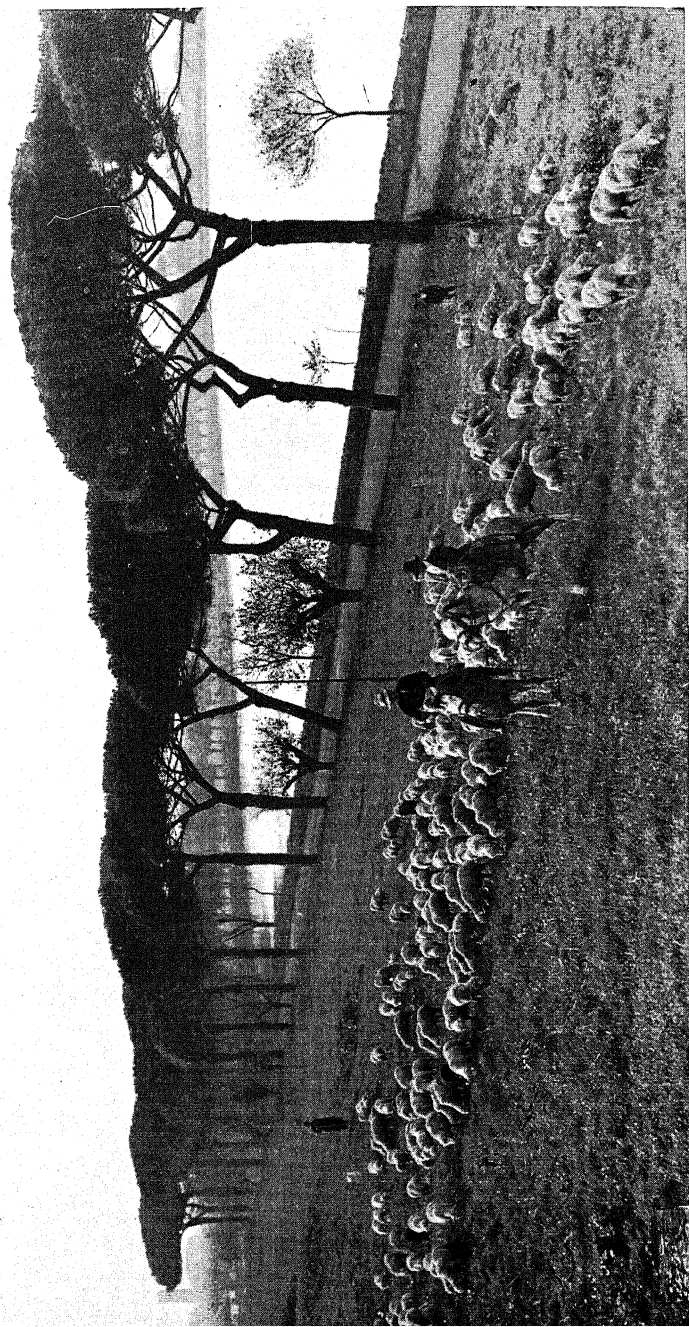
In addition to the above a great aqueduct is being built to supply the whole district with drinking water; a third has been finished.

Agricultural reclamation has followed rapidly on the completion of the drainage works, and within the third and fourth year of their completion the whole of the circumscriptions had been ploughed up and placed under cultivation.

The study made by Dr. Ronchi and Dr. Carnaroli, to which we have already referred (see note 1 to page 147), describes the agricultural conversions carried out both on the estates which before the reclamation comprised lands on a high level under full production alternating with swampy zones, and the estates consisting exclusively of marshlands, far from any centre of population.

In the case of the former, no sooner were the marshlands drained than they were brought under cultivation on the same lines as the lands already farmed with the improvements deemed advisable:

The owner carried out the secondary canalization works required, and started the agricultural conversion by using the labour force and stocks already to hand on the crop-sharing farms of the high-level zones. Later on, when the productive possibilities of the lands had been ensured and stabilized, they were divided into farms equipped with the requisite buildings and tree-crops (vines and mulberries) were developed. Sometimes the conversion was carried out in part by the crop-sharing farmers of the high-level zones, who assisted in carrying out the work on a portion of the former marshy lands; while the owner himself undertook the conversion of the remaining area, providing live-stock and tractors, and farming the lands on a crop-sharing basis by leasing them



PRINCE TORLONIA'S ESTATE IN THE RECLAIMED AREA OF PORTO AND MACCARESE.
Courtesy of Istituto Nazionale Luce.

to the small tenant farmers or to the farm labourers employed on the other sections of the estate, or on neighbouring estates.¹

In the case of conversions carried out on estates on which exist the latter conditions, many difficulties have to be overcome, as the whole organization and equipment of the farm has to be provided. Fortunately, the technical difficulties are now less serious than they were before the war—

the progress of farm machinery, the development of the means of locomotion . . . and the assistance given by the Government by enlarging the scope of reclamation work so as to include roads, navigable canals, electric power systems, etc., and by developing agricultural credit, have placed the owners of these estates in a position which enables them to carry out the work rapidly and economically.

As a result, agricultural reclamation has been carried out on more organic lines and with progressive rapidity and intensity.

When once a few commodious farm buildings have been erected so as to provide a basis of operations, and a good selection of agricultural machinery has been made, the first and most difficult stage of the work can be faced with less anxiety than formerly, and much greater rapidity of action can be secured. Thanks to the progress of mechanical ploughing, the almost total absence of live-stock has not been an obstacle to preparing the land for crops.²

The following figures show the growth of production obtained as a result of land-reclamation on the Lower Piave; in appraising them we must also bear in mind the social and hygienic advantages secured.

GROWTH OF PRODUCTION ON RECLAIMED LANDS IN LOWER PIAVE³

	Prior to Reclamation.	Approximate Present Yield (1934).
Grapes	8,000	20,000 metric tons
Cocoons	100,000	449,000 kg.
Maize	16,000	43,000 metric tons
Wheat, oats, rye . .	5,000	25,000 " "
Straw, etc. . . .	75,000	70,000 " "
Forage	30,000	180,000 " "
* *	*	*

¹ *Op cit.* Dr. Ronchi and Dr. Carnaroli.

² *Ibid.*

³ *Ibid.*

3. THE BRISIGHELLA RECLAMATION.¹

The Brisighella consortium afforded the first example of a special form of hydro-agrarian reconditioning of mountain lands, in the lower Apennines with a Pliocenic clay soil. Reafforestation would have been difficult, whereas, when properly prepared and protected, these lands can be successfully used for arable crops and artificial meadows (sulla, lupins, alfalfa). This kind of farming demands that the fields which have been gradually brought under cultivation be constantly protected against soil erosion by water; but this can be easily secured when the land is cultivated by smallholders or crop-sharing tenants personally interested in the success of the crops.

The Brisighella circumscription (consortium for the mountain basins in the commune of Brisighella and neighbouring communes in the provinces of Ravenna, Florence, Forlì, and Bologna) covers an area of 82,250 hectares, almost all hilly and mountainous lands. After a level zone a few kilometres in depth running parallel to the Emilian road at 30 metres above sea level, we come to a zone of hills and mountain spurs rising to an altitude of 1,200 metres on the Adriatic-Tyrrhenian watershed.

Geologically the lowlands along the Emilian road and the chief watercourses consist of quaternary deposit, the foot-hills belong to the Pliocenic Age and are much deteriorated by the formation of the so-called "calanchi";² the middle zone belongs to the Miocenic and the highest to the Eocenic Ages.

The works were begun in 1921 on an area of 5,000 hectares. The measures taken for securing the con-

¹ See A. Serpieri, *Bonifica integrale e colonizzazione*, in *La Legge sulla Bonifica integrale nel secondo anno di applicazione*, p. 201.

² "Calanchi" is a term applied to formations found in mountainous and hilly zones consisting of Pliocenic clay denuded and washed out by water. They have the appearance of sharp blades from which the water runs off rapidly and precipitously, dissolving them and carrying them away bit by bit, thus removing a large amount of solid matter which the torrents empty into the underlying plains, which are continually threatened thereby until the reconditioning, of which we are speaking, is carried out.

ditions which the hydraulic reconditioning of the calanchic zones aims at securing, may be summed up as follows:

(a) the regulation, by drainage ditches, of the surface waters above the "calanchi";

(b) the erection of weirs across the main course of the streams wherever erosions or landslips appear or where embankments have to be built on the lateral slopes to reduce the gradient and render the land more stable and better adapted to farming purposes;

(c) reconditioning the surface of the "calanchi" by reducing the gradients, which is done by filling in the gaps above them, for this purpose a bank is generally built at the foot of the calanchic fan, and smaller retaining parapets along their ramifications, the steeper calanchic edges being broken down with the help of explosives and by the erosive action of the waters flowing in ditches cut for that purpose.

The following works had been carried out up to 31st December 1934:

	No.	Total Height (Metres)
Masonry parapets and banks . . .	74	181.40
Earth dams and weirs . . .	851	3,850.80
	<u>925</u>	<u>4,032.20</u>

85 kilometres of road have been built in connection with the land conversions.

The works thus briefly mentioned would not by themselves have been sufficient for reconditioning the rain-water basin.

The deteriorated Pliocenic clay zone covering an area of 12,000 hectares, runs nearly parallel to the Emilian Road for a length of 20 Km., the depth averaging 6 Km. It is traversed by the Rivers Senio, Lamone, and Marzeno (right-hand affluents of the Lamone), and by the Sintria, Albonello, Sandrona and Samoggia torrents.

It is in this zone that the work of reconditioning and farming these lands has been most actively pursued by the consortium.

farther south or crosses over to the islands one finds conditions progressively aggravated by the lack of roads and by loss caused by prolonged summer droughts. These difficulties must be overcome in order to make use of lands consisting mostly of alluvial soil of high potential fertility, and enjoying climatic conditions which permit of vegetation even in the winter months. So we will follow the descriptions given above of land-reclamations in North and Central Italy by describing the Sele works, which may be considered as typical of those carried out in the South, and this chiefly on account of the vast irrigation plans they provide for.

The reclamation circumscription in the plain of Sele covers 41,207 hectares, of which 23,956 is on the right and 17,251 on the left of the river of that name. These lands form an alluvial plain, stretching along the Gulf of Salerno for a distance of over 30 Km., enclosed to the north by the Fuorno torrent, to the south by the Solofrone torrent, with the last spurs of the Apennines in the background. In this plain rise the majestic ruins of Paestum.

The chief water-courses are the River Sele with its affluent the Calore, the Rivers Tusciano and Picentino.

Attempts to reclaim these lands were first made by the Neapolitan government, followed by other projects, but the present works were started in June 1929. A private company, organized by Senator Mattia Farina, a large landowner of the zone, applied in 1923 for a concession for the reclamation of the whole of the Sele basin. This was subsequently divided into two sections, the Company retaining that to the right of the river (23,956 hectares), the left sector (17,251 hectares) being granted to the Paestum Consortium, formed in 1928 by the owners of the lands on the left of the Sele. In June 1929, when the plans had been definitely agreed on, grants were made for the first lots of work, the company undertaking those on the right and the Paestum Consortium those on the left of the river.

Drainage on both sides of the Sele consists in separating

the high and medium waters from the low, the former being carried off directly to the sea or emitted into the Sele near its mouth, while the latter are raised by pumping stations. At the same time the process continues of raising the level of some of the depressed zones along the sea-coast by allowing the Sele and the Tusciano to deposit there the soil they carry down.

A levy is being built on both sides of the latter reaches of the Sele so as to avoid periodical overflows.

But the most typical feature of this reclamation is afforded by the irrigation works, which will provide water for the major portion of the circumscription, extending over some 27,000 hectares.¹ Of these 13,000 hectares on the right and 8,500 on the left of the Sele are irrigated by the waters of that river, another 3,000 hectares to the right are irrigated by the waters of the Tusciano, and 2,500 hectares on the left by those of the Calore. The works for supplying the whole district with drinking water are also of considerable importance, as also those for building roads connecting the whole plain with the local centres of population and with the country's main lines of communication, thus bringing producing centres into touch with consuming markets.

So as to utilize the waters of the Sele for irrigation purposes a lock was built to raise the level of the water in the dry season sufficiently to enable it to flow into the main irrigation canals opening to the right and left of the reservoir formed by the dam, whence branch off two systems of irrigation ditches to the right and left of the Sele.

The lock is 165 metres in length, consisting of a guard-lock, and of a lift-lock fitted with four self-acting sluice-gates each 17 metres long by 6 metres high. The maximum height of the dam from the lowest level of the

¹ At the present stage of the work 6,000 hectares on the right and 1,335 on the left of the river can be irrigated. On the left side, the water is carried for 4 Km. in a tunnel and for 7 Km. in a ditch excavated half-way up the mountain where there are only small irrigated zones. But the work already completed has brought the water nearly to the plain lands over which the irrigation ditches will distribute it.

river bed to the floor of the bridge which spans it, is some 15 metres.

The self-acting, self-levelling sluice-gates allow of the discharge of flood-waters at a maximum rate of 2,000 cubic metres per second so that the level within the lock never rises above the point fixed for the discharge of the water into the canals; the accessory and protective works have been constructed on this basis.

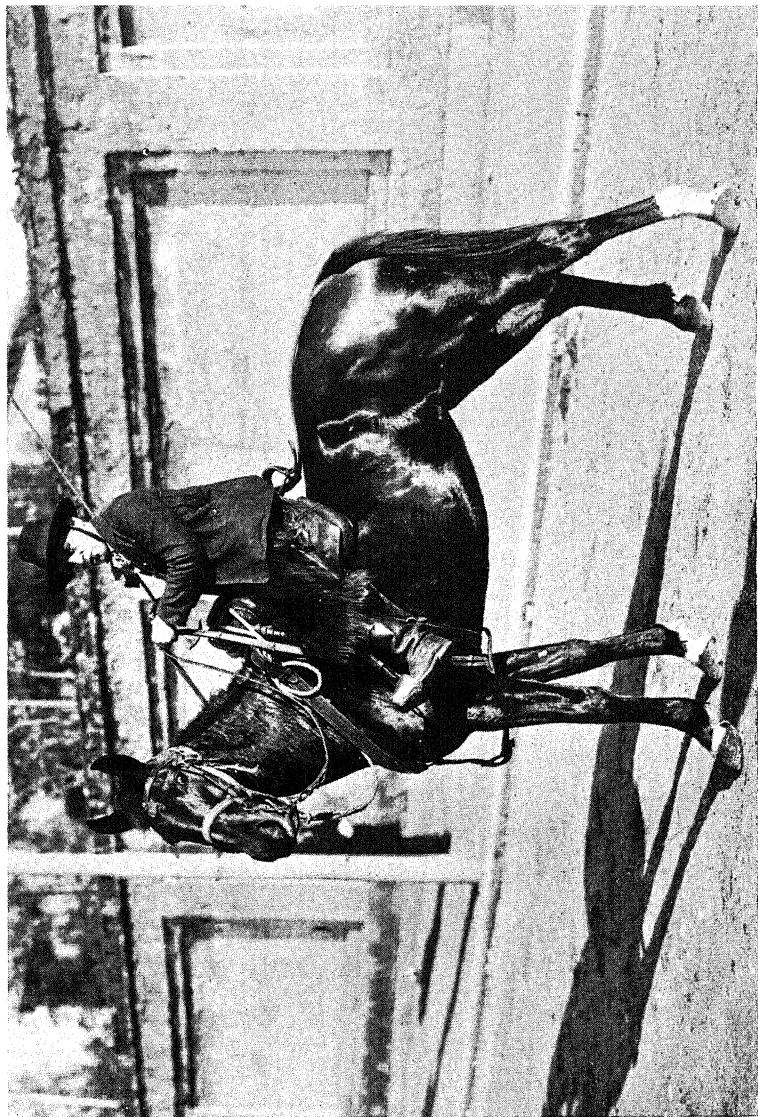
Both the irrigation and the drinking water conduits have entailed important works: the excavation of tunnels several kilometres long, and the building of viaducts, subways, etc.

The agrarian conversion of the circumscription is immensely interesting. The primitive conditions prevailing on these lands, infested with malaria and farmed for the most part extensively as ranches for herds of unstabled cattle, horses, and buffaloes, are now making way for the most advanced forms of farming. The conversion is carried out on several lines. Small farms are organized, intensive agriculture is introduced on the large estates, villages are built. Among the products raised on the new lands are the fruits already successfully cultivated in the district, and noted for their exquisite quality due to a combination of soil and climate; such are the grapes, peaches, pears, and melons of Salerno. The raising of forage crops is leading to the growth of animal husbandry, new methods, among which the stabling of buffaloes, being introduced. The uncouth-looking buffalo, hitherto associated with swamps, malarial fever, and general squalor, is a strong beast with few requirements, of great value as a draft animal and for butcher's meat, but above all its milk is very rich in fat, and for all these reasons breeders are much attached to it. In justice to the buffalo it should also be said that he shows more attachment to the men who look after him than does the domestic cow. Moreover, the exceptional richness of the milk allows of its use in the preparation of a delicate soft fresh cheese known as "mozzarella".

These reclaimed lands have a great future before them.

This is made evident by the exceptionally fine crops, and the great variety of valuable farm produce obtained in other parts of the same province, as for instance, in the Sarnese Ager, in that of Nocera, and in the neighbouring province of Naples. Here the South, with its wealth of light and colour, offers the whole vast range and original series of its crops: fresh vegetables follow one another in rapid succession in the irrigated market gardens, warmed by the sun in winter and summer alike; three successive crops are secured in the same year from the same fields, as for instance, cabbages, potatoes and tomatoes; three crops are raised simultaneously at three different altitudes on the same field, as, for instance, wheat or forage crops, or vegetables associated with vines or citrus fruit or other fruit trees, above which rise walnut trees. Crops grow one above the other to quite considerable heights as, for instance, in the case of vines growing in festoons up tall poplar trees overshadowing wheat or hemp or maize fields. Citrus trees are cultivated on small terraces supported by walls several metres high, irrigated with a little precious water; other crops grown are almonds, flowers for their seed, etc., while wines and fig-trees clothe the mountain sides, and the olive trees, which in Central Italy are pruned to look like bowls so as to keep them well-ventilated and dry, in the arid zones of South Italy are bent to umbrella shapes so that their drooping branches may protect the scanty soil moisture, while the check to their natural upward tendency increases the yield of fruit.

Here again, as in other parts of Italy, the progress made with integral land-reclamation is accompanied by the progress of archæological research. As the newly reclaimed fields of the Sele district are brought under cultivation, the ruins of a past civilization are brought to light enabling us to reconstruct in the mind's eye the city of Paestum in all its original Grecian beauty, and as it appeared later on with the buildings due to that growth of Lucanian activities which preceded the Roman settlement. Indeed, a wonderful historical retrospect opens up



" BUTTERO " (COWBOY) OF THE ROMAN CAMPAGNA.
Courtesy of Istituto Nazionale Luce.

on this River Sele, which marked the southern frontier of Etruscan expansion.

* * * * *

5. THE TIRSO RECLAMATION ¹

Referring to the work in Sardinia, Professor A. Serpieri wrote in January 1932, as follows of the Tirso reclamation:

... particularly impressive is the reclamation now being carried out in the Campidano district of Oristano where the great artificial lake of the Tirso not only supplies Sardinia with electric power but provides abundant water for irrigation purposes (20 cm. per second). Here, on the left of the Tirso, in the area of Terralba, S. Giusta, and Palmas (28,000 hectares), the work is being carried out by the *Società Bonifiche Sarde*, acting as concessionaire for the government works and as owner of some 10,000 hectares of land. The drainage works, road building, irrigation works, those for the supply of drinking water, the embankment of the river, the building of villages (among others Mussolinia) are all well advanced, and on a section of the lands owned by the Company intensive irrigated farming has already been introduced, along with a plan of settlement providing for 6 farming centres and 220 farms on which many peasant families from the mainland are settling. So far this is the most conspicuous example of integral land-reclamation in Sardinia.

Contiguous to this area, also on the left side of the Tirso, is the vast circumscription of Guspini-Pabillonis (25,000 hectares) and on the right side of the Tirso the large circumscription of the same name covering 35,000 hectares of land of high potential productivity; the preparatory drainage works are now being carried out.

In the "List of Land-Reclamation Circumscriptions on 1st July 1934,"² Professor Serpieri gives the following data on the present extension of the Tirso reclamation

¹ A. Serpieri, *Bonifica integrale e colonizzazione*, in *La Legge sulla bonifica integrale nel secondo anno di applicazione*, p. 201. Quoted from an article published in the *Nuova Antologia* of 16th January, 1932. Eng. Giulio Dolcetta, *Bonifica e colonizzazione di Terralba in Sardegna*, in *L'Italia Agricola*, Year 66, No. 11, Nov. 1929, Piacenza.

² See List published as an appendix to the volume: A. Serpieri, *La legge sulla bonifica integrale nel quinto anno di applicazione*. Roma, 1934, p. 433.

works which now form the circumscription of Campidano di Oristano and are divided into eight sectors:

LAND-RECLAMATION CIRCUMSCRIPTION OF CAMPIDANO DI ORISTANO

Sectors.	Area.
1. Guspini Pabillonis	39,500 hectares
2. Terralba and Stagno di Sassu	25,000 "
3. Cirras	1,900 "
4. Stagno di S. Giusta	1,000 "
5. Left Tirso or Campidano Minore	17,000 "
6. Right Tirso	34,000 "
7. Stagno di Cabras	4,600 "
8. Stagni di Benetudi e Is Benas	3,500 "
Total	<u>126,500</u> "

The Tirso artificial lake was built to regulate the waters flowing from a rain-basin of some 2,100 sq. Km., to generate electric power on a large scale and to distribute the waters discharged from the lake for irrigation purposes. The work was completed in 1923. To extend the irrigation works to a larger area compatible with the great size of the reservoir, which is one of the largest in the world, it has been coupled, for the needs of the power station, with the other lake built on the river Coghinas, also of great size (250 million cubic metres of water with a fall of 100 metres) and able to generate large supplies of electric power, but only able, for topographical reasons, to irrigate relatively small zones. In this way the Coghinas during the winter provides electric power to the Tirso zone, thus enabling that lake to retain a larger quantity of water, utilized during the summer months for irrigating a wider area and for supplying electric power in its own zone and to some extent to that served by the Coghinas. Thus the water of a rain basin of 4,000 sq. Km. (2,100 of the Tirso and 1,900 of the Coghinas) with a reservoir capacity of 650 million cubic metres, can irrigate some 28,000 hectares of land, of which three thousand under the Coghinas and 25,000 under the Tirso.

The Company which built the artificial lakes formed

as a branch the *Società Bonifiche Sarde*, which as above stated obtained the concession for the reclamation of Terralba, the Sassu swamp, and neighbourhood. The works entail the regulation of the Rio Mogoro, the canalization of the upper and middle waters, the drainage by pumping of the Sassu and other swamps, the building of drainage ditches and roads, of which there were none in the whole zone, and the opening of an irrigation system.

The Sassu swamp has been drained by a powerful pumping station installed on a ridge dividing it from the adjacent one of Sena Arrubia which has an outlet to the sea. Costly works were necessary to ensure the stability of the pumping station, and the high salt content of the waters of the Sassu swamp also presented difficult problems, met by washing out the swamp during the summer months. This was done by discharging into it great quantities of fresh waters through the irrigation canal, and then pumping them out, so that the swamp gradually became less salt. For this purpose from July to November 1934, the pumping station uninterruptedly raised the swamp waters 3 metres high, at a regular rate of 12 cm. per second. When this decanting was finished, the bed of the swamp, whose salt content had thus been reduced, was settled by excavating along the whole length of the lowest central part a canal for collecting the low waters, to which the secondary canals and drainage ditches are connected.

At the centre of the Terralba reclamation rises the settlement of Mussolinia di Sardegna. It was inaugurated by H.M. the King in 1929, when it numbered 1,000 inhabitants, a number which had risen to 2,203 two years later when it was granted the status of a municipality. The present population (May 1935) numbers 3,150 settlers mostly from Venetia, besides two or three thousand labourers who come daily from the neighbouring villages for the reclamation works which are still being carried on. The village itself has some 500 inhabitants. There are 184 farmer families, to some of whom two lots of land are assigned. The farmhouses, fully equipped

with machinery, implements, and livestock, provide over 1,000 rooms, the stables number some 300, 90 Km. of electric wire have been laid, some 4,000 works have been built in connection with the irrigation system, and nearly 900 hectares of land have been planted to trees (eucalyptus poplars, and acacias); forming a windscreen and providing firewood and timber, while also affording welcome shade to the settlement.

The *Società Bonifiche Sarde* has already irrigated some 3,600 hectares of land, and within the current year the system will be extended to a further 1,200 hectares.

Four hundred hectares are farmed by the company itself which has built three large cow-sheds for 300 milch cows of the brown Sardinian breed. Nearly 2,600 head of cattle are now on the land.

Important reclamation works will be completed within the current year on the Guspini Pabillonis sector, covering 2,000 hectares, and the *Istituto Sardo per la Bonifica Integrale*, which is carrying out the work, expects to make a first important experiment in land settlement in 1936.

The reclamation of the *Stagno di S. Giusta*, not yet completed but well advanced, has greatly increased the amount of fish in the lagoon waters, and the annual gross yield of the fisheries is estimated around 800,000 lire.

In the circumscription of *Campidano Minore* the Tirso has been embanked from Sili to the sea. This work, completed by canalization where needed, was required not only for protecting the little town of Oristano from floods, but for the hygienic reclamation of over 1,500 hectares lying below Oristano, also liable to be flooded by the Tirso.

Among other important works now in hand mention must be made of the system for canalizing the low waters, thus draining numerous swamps and collecting the drainage waters from the farms.

Agricultural reclamation and land-settlement is attended to by a private owner and by the *Istituto Sardo per la Bonifica Integrale*, which owns some 400 hectares of land.

When the works now in hand are finished, plans for the agricultural conversion and irrigation of over 5,000 hectares will be taken in hand.

Several swamps have been dried in the circumscription on the right of the Tirso, and the lands are now ready for cultivation and division into farm holdings.

In the sector of *Benetudi* and *Is Benas* the drainage of the *Is Benas* swamp has already been carried out and much of the land is already under cultivation. The *Benetudi* lagoon has been connected with the sea by a canal and is now open for fishing.

Work has only recently begun in the other sectors.

The limited space at our disposal does not allow of a fuller description of the *Terralba* reclamation, nor can we give a detailed account of the other reclamations along the Tirso to which reference has been made. But the facts set forth while they do not claim to give an account of the technical problems involved and of their solution, which would require a separate study, will perhaps suffice to give an idea of integral land-reclamation activities in their many manifestations and of the importance of the results achieved.

CHAPTER VIII

MUSSOLINI ON LAND-RECLAMATION

I. LITTORIA AND THE PROGRESSIVE STAGES IN THE PONTINE RECLAMATION

A. 18th December of Year XI (1932).

COMRADES: This is a great day for the revolution of the Black Shirts. It is an auspicious day for the Pontine Ager. It is a glorious day in the history of the nation.

What was vainly attempted during the past twenty-five centuries we are to-day translating into a living reality.

Does the occasion justify pride? No! We are only a little moved, and those who lived the great and tragic days of the victorious war, when passing before the names commemorating the Grappa, the Carso, the Isonzo, the Piave, feel the old memories surge up tumultuously. To-day, with the official inauguration of the new commune of Littoria we may consider that the first stage of our journey has been accomplished. That is to say we have won our first battle.

But we are Fascists, and instead of looking backwards we are intent on the future.

So long as all the battles of a war have not been won, victory cannot be claimed. Only when by the side of the 500 houses now built, 4,500 others have been erected, only when by the side of the 10,000 inhabitants of to-day dwell the forty to fifty thousand others whom we promise ourselves to provide with a living on these which were the Pontine Marshes, only then shall we be able to publish to the nation the final bulletin of victory.

We should not be Fascists if we failed to state right now, with the precision customary to us, with the energy

which is ours by temperament, what the future stages of the work will be, to wit: on the 28th October 1933 another 981 farmhouses will be inaugurated; on 21st April 1934 the new commune of Sabaudia will be inaugurated (please bear that date in mind); on 28th October 1935 the third commune, Pontinia, will be inaugurated. Then, by that date, we shall probably have reached the goal and carried out our whole plan.

I wish to congratulate first of all the President of the National Foundation for Ex-Service Men, and then his immediate assistants, the engineers and other technical experts. I wish to congratulate the workers who have come from all parts of Italy, and the farmers who have come from the lands of Venetia and the Valley of the Po to till this soil.

It is perhaps timely to remember that once on a time those seeking work had to cross the Alps or sail the Ocean. To-day the land is here, at half an hour's distance from Rome. It is here that we have conquered a new province. It is here that we have conducted and shall continue to conduct real operations of war.

This is the war we prefer. But we must be left to attend to our work in peace.

Littoria is entering on its new life. I am sure that the farmers who have come here will be glad to get to work, for, among other reasons, they have the prospect of acquiring in 15 or 20 years' time full ownership of their farms.

I would say to the peasants and country folk, who are particularly close to me, that, as old soldiers, they must bravely face the difficulties encountered when starting on a new enterprise. Let them look to this (the Lictor's) tower, which dominates the plain and is a symbol of Fascist power. Turning to it they will find, if need be, help and justice.

B. 18th December of Year XII (1933).

Comrades of Littoria: Before distributing the prizes to the farmers who have earned this practical expression of

regard, I wish to give you my greetings. A year has gone by since I spoke to you from this balcony in words which awoke an echo throughout Italy and beyond our frontiers. The occasion was the foundation of Littoria. Since then twelve months have elapsed. We have continued to work; we have travelled a further stage along our rough and difficult path.

These long days of rain have tested the land-reclamation works. I have been able to assure myself, and you will all have done so, that from the ditches into the smaller canals, and from the smaller into the larger canals, the waters all flow into the sea. From this point of view the battle has been won all along the line.

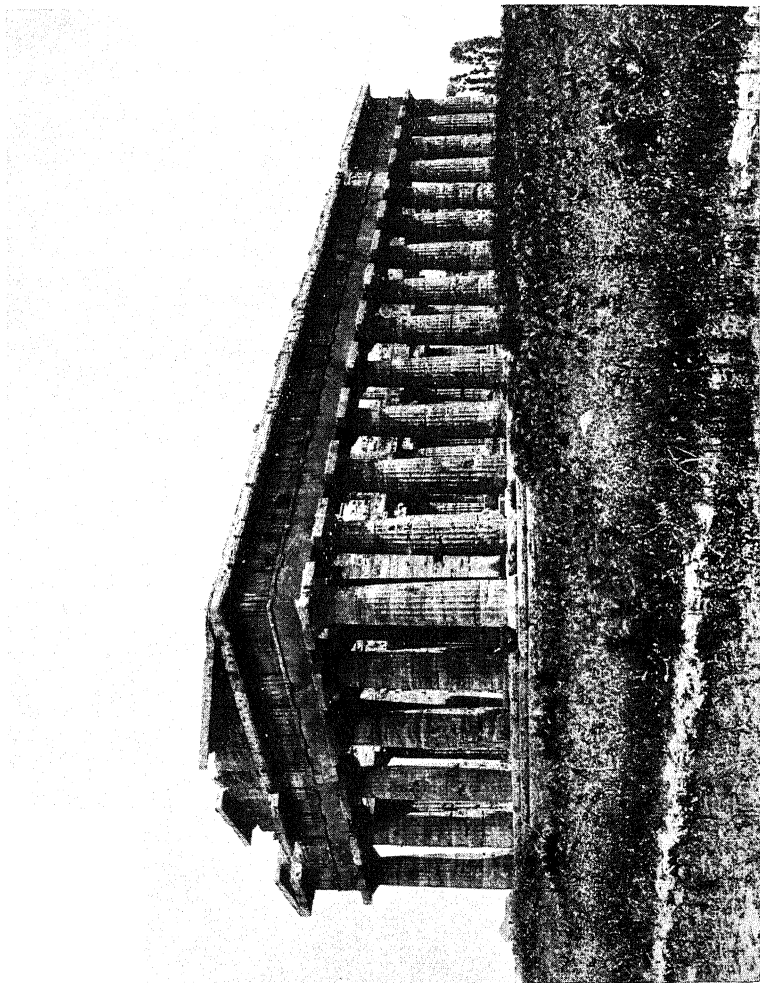
And now let me tell you that in a year's time the new province of Littoria will be inaugurated: All the other works will go forward at the pace we have already set.

Littoria has been spoken of as a miracle. There are no miracles; here we have your work, your tenacity, the splendid ability of our engineers and experts, my determination, and the savings of the Italian people. These fundamental factors have enabled us to start the work, to continue it, and they will enable us to bring it to a successful conclusion.

The Fascist régime is a régime of justice, and as it rewards those who work, it despises parasites and punishes scoundrels. I wish to say to all you workers who have come from all parts of Italy, settlers from all the provinces, who have begun to live your new life here, that I follow your work from day to day. I am informed, and I wish to be informed of everything that concerns you, of everything that may be of interest to you; for I wish you to be proud of contributing with the work of your hands to the achievement of this reclamation (work), which will go down to history as the greatest work achieved by the régime up to now.

G. 18th December of Year XIII (1934).

This is a day of rejoicing for the reclaimed Pontine Ager; a day of legitimate pride for all the Black Shirts of



THE TEMPLE OF PESTUM.
Courtesy of Istituto Nazionale Luce.

Italy and for the whole Italian nation. The importance of the occasion becomes evident when we remember that this Piazza, whose name commemorates the date of the 23rd March, a fundamental date in Italian history, only three brief years ago was part of a fever breeding swamp. We have engaged in a hard struggle. We have had to face not only natural conditions, but also scepticism, mental inertia, the moral cowardice of those who before the battle is begun would like to be mathematically certain of victory, whereas we Fascists give even more importance to the battle than to the victory. For, when a battle is fought with unflinching determination, victory cannot fail to crown it.

I wish to give my greetings to the Black Shirts and to the inhabitants of communes in the bordering provinces who have come to form part of the youngest province of the Kingdom. Let me state that their interests will be taken into special consideration. With them is the other part of the population which has come from very many provinces of the Kingdom to fill in materially the gap which lay between Rome and Naples, to form a province definitely unitarian in the composition of its population and therefore exquisitely fascist.

We are celebrating to-day a stage of our journey which we have accomplished. I think there is work for another decade in the Pontine Ager. If this gigantic work is not to be disturbed or interrupted the armed forces of the Nation must be such as to make it extremely powerful, and you, Black Shirts and ex-service men, know this. For the plough drives the furrow but the sword defends it. And the plough-share and the blade are, both made of steel, tempered as is the faith in our hearts.

Now you will understand why you heard the voice of the cannon thunder alongside mine.

2. THE FACE OF THE COUNTRY

Black Shirts: I have come to your city for several reasons. First of all I wished to revisit places where I passed some of my youth; in the second place, I wished

to give a proof of my affection for the Fascism of your city and of your province; a square, solid, faithful Fascism. Finally, I wished to begin the fifth year of the Fascist régime by opening works which do it honour.

The Fascist régime does not commend itself to history by more or less well-drafted resolutions by more or less eloquent speeches. The Fascist régime, now and in the future, will go down to history by its positive achievements, the things it has created, actually, physically, and deeply transforming the face of the country.

This morning we opened a railway I wanted, and which your builders have completed, as they should under the Fascist régime, strictly within the time laid down. Then I have visited lands reclaimed from swamps; this also is a work of vast bearing, and I was glad to find on those lands men belonging to the old nobility who know how to regild their ancestral coats of arms by the practical and active labours of the farm. This is the right way, comrades, for it is no longer permissible to live on that done by others before us.

We must create, we of this epoch, of this generation, for it is our task, let me tell you, to transform in a decade beyond recognition the physical and spiritual face of the country. In ten years' time, comrades, Italy will be unrecognizable. We shall have transformed her, made her another, from her mountains which we shall have clothed with their rightful robes of green to the fields which we shall have entirely reclaimed, to the railways which we shall have increased, to the ports we shall have re-equipped, for Italy must recover her sailor soul.

And then there are the political and moral transformations. We must create a new Italian, an Italian who will no longer resemble yesterday's. There are the generations who fought the war and who are therefore intimately fascist, and then come the generations whom we are educating to-day, and whom we are making in our image and likeness. The legions of the *Balillas* and the *Avanguardisti* who at my wish were gathered together the

other day in the austere and solemn majesty of the Coliseum.

This, comrades, is the Italy which we carry in our minds, not the Italy of our dreams but the Italy of our labour.

Comrades, you must not suppose that our toil is finished; it has hardly begun. By now all are convinced that our régime cannot be defeated. All those who doubted it are by now mere shadows, spectres, pallid men of another age, of another century; they can no longer call a halt on our march forward. There are objective difficulties, difficulties which are in the very nature of things, and which we will face with high courage, with a great sense of responsibility, and with a spirit of strict discipline. The great word Fascism has spoken to the Italians is this: there are no rights except those which arise from duties performed. Our doctrine, before being written in heavy volumes, has been lived, with ardent and operating passion, by the whole Italian people, and for this doctrine thousands of Fascists laid down their lives during the necessary and bloody period of civil strife.

History is not made by the cowardly but by the courageous; not by the lazy but by the active. History is made by those who know how to seize opportunities and bend them to their own tenacious will. This is the Fascist creed of the year 1926-7, fifth year of the régime. We can look calmly at the tasks of the morrow. As Head of the Fascist régime I feel that the people assist me in my toil.

Black Shirts, be sure that I will lead you ever higher, ever further forward. (Spoken in the presence of the workers of Reggio Emilia, 30th October 1926.)

3. ECONOMIC RECONSTRUCTION

. . . Either the economic reconstruction of the world will hinge on the development, to the maximum degree, of all the energies of the soil and of the rural populations, or it will exhaust itself in vain, even though (they be) praiseworthy, efforts. . . . (From an address delivered

at the International Institute of Agriculture, Rome, 6th November 1927.)

4. AGRICULTURE IN THE DYNAMICS OF WORLD ECONOMICS

Sire, Your Excellencies, Ladies and Gentlemen: It would be impossible to celebrate the Jubilee of the International Institute of Agriculture without recalling its illustrious origins, with which, as also with the present and future fortunes of this great Institution, the august name of His Majesty Victor Emmanuel III is indissolubly linked.

In 1905 the idea of a Union of States for common protection of economic interests took for the first time clear shape. "To render less costly the trade in agricultural products and to facilitate a more favourable settlement of prices," such were the aims proposed for the activities of this Union as set forth in that historic document, the manifesto-letter written by Victor Emmanuel III, leading up to the International Conference which was destined to bring the Institute to birth.

Two years later, in the period between the Foundation of the Institute and the actual inauguration of its activities, at a time when a severe depression, in many respects similar to the present one, was affecting a considerable part of the world, the following words were penned, in a letter to a journalist, by that unusual and striking personality, David Lubin:—

"We have devoted hundreds of years and thousands of well-balanced minds to the development of clocks and watches, but we have had no time to devote to the much more important matter of the equities in exchange."

These "equities in exchange," in the interests of a depressed agriculture, and of the rural populations, not merely, be it noted, as producers of the wealth of the soil, but also as consumers of manufactured goods, were the supreme goal of the ideals and labours of David Lubin, and formed also the fruitful germ, the central idea that inspired the International Institute of Agriculture. Nearly twenty years later the same principles, the same

purposes were to be proclaimed in the covenant of the League of Nations under the formula "equitable dealings in commerce."

But to have proclaimed such principles and purposes at the beginning of the twentieth century, and to have applied them to agriculture—a calling which seemed to stand completely outside and aloof from any form of organization on public lines—was indeed an act of kingly courage, as also one of civic wisdom, at once far-sighted and discerning.

In the present distresses which affect all the Countries of the World it is not easy to distinguish causes of an economic from those of a monetary character, nor to distinguish between the parts played in the crisis by the reduction of the purchasing power of the peoples and by the development of the technique of production. In the present state of scientific knowledge it is hard to say whether these far-reaching troubles are to be attributed to those natural cycles against which—according to certain theories—man's will and power are helpless, or whether on the other hand they are due to remediable defects in social and economic adjustments. In any case, out of the welter there emerges one clear fact, positive beyond any shadow of doubt, and that is the predominant part played by agriculture in the dynamics of world economics—affecting both productive efforts and market movements—either in bringing about a crisis, or in forestalling or mitigating its evil effects.

All are aware that the signs of this disorder manifest themselves primarily, and as a continuous phenomenon, on the agricultural market, all know too that this market sets the tone of economic life in general, and that where agriculture is best safeguarded and enjoys the benefit of an enlightened State policy, there the effects of a depression are less severely felt. Over-production of certain essential commodities, the reduction in the farmers' power to purchase the products of the manufacturing industries—surely these are the most serious features in the economic confusion now afflicting the world.

Hence Agriculture is and will be the point of convergence of all efforts for the restoration and readjustment of the delicate mechanism of economic exchanges, subject, as are all human affairs, to the rule of constant reshaping. The justification of the existence of the International Institute of Agriculture, and the true value of its work lie now, and will in the future lie, in its ability to promote rapid understandings between Member States or groups of Member States, to suggest technical, economic, and social measures, to outline policies, which will assure to agricultural forces their true place in the national sphere. This should be the starting point for a better adapted scheme of trade relations between countries, less subject to those disturbing factors which it is beyond the power even of concerted action to control.

In these few words, I have sought to outline the character and the threefold sphere of action of the Institute, whose emblem is the triple wheat ear. It would be a grave mistake to attempt to confine its work solely to information and the diffusion of technical and statistical data, although herein it has exercised and continues to exercise a function of high authority and unquestioned utility for the Governments and for the enlightenment of public opinion in all countries. The prevailing duty of the Institute is to lay down certain fundamental lines which will serve to guide the policy of the States for the improvement of the conditions of the rural classes, whether by protecting their interests or raising their standards. All aspects of their conditions need improvement: the economic and social by raising their purchasing power, thus removing one of the causes of depression; moral conditions by the effort to keep the farmer on the land and to find the means of counteracting the attractions of town life. The programme is one of ruralization in the fullest sense. The International Institute of Agriculture has remained faithful to this programme during the first twenty-five years of its life, and it will develop this programme with energy, with skill and with devotion in the years to come, going steadily

forward to confront the new and strenuous tasks which lie ahead.

Sire, Your Excellencies, Ladies and Gentlemen, This noble enterprise, the outcome of the steadfast purpose of the King of Italy, and realized through the constant support and generous assistance of the States, is an essential factor in international co-operation both of the present and of the future. (Address delivered at the Capitol on 14th October 1930, on the 25th Anniversary of the foundation of the International Institute of Agriculture.)

5. A GREETING

. . . Carry back my greeting to all the most distant cottages, to all your comrades scattered over the fields of our adorable country, and tell them that if my tenacious will is backed by their co-operation, Italian agriculture will go forward towards an epoch of great splendour. (From: "The Meaning of the Wheat Campaign." Rome, 30th July 1925, III.)

6. THE WHEAT CAMPAIGN IS IN FULL SWING

Comrades, Farmers, Gentlemen: If you are the officers of the army engaged in the campaign, and if I am your Captain, the conclusion to be drawn is that I ought to make no speech at all, for the best speech a soldier can make is to observe strict silence.

I shall therefore limit myself to a few statements. What I have called "the wheat campaign" is in full swing, and the operations are proceeding most satisfactorily. The consent given to this campaign by all classes of the population is touching: public bodies, private bodies, manufacturers, workers, teachers, priests, scholars, in Italy and abroad, have given me in recent months evidence of their truly significant interest in this work. Landowners have offered me their lands for nothing so that I might turn them into experimental fields. I can safely say that there is not a cottage to which the echo of this campaign has not come.

The campaign is a simple one, because the objective

is clearly defined. It consists in increasing the average yield per hectare. And for my part I am satisfied with small beginnings. I shall be satisfied if the average yield per hectare is increased by one or two quintals.

I have read with much interest all the replies received from the directors of the agricultural extension services, in answer to my plain question: "Is it possible to increase the agricultural yield in the area under your jurisdiction?"

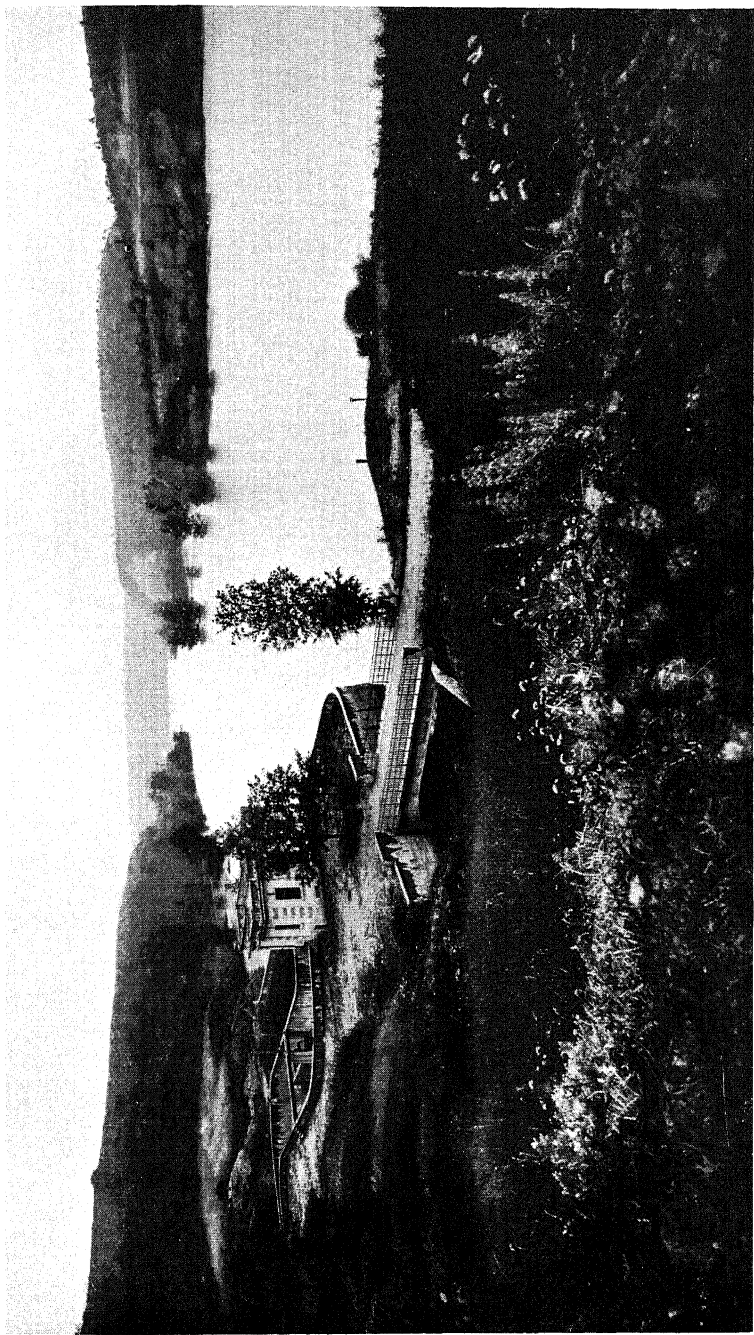
The reply has been unanimous: from the mountains to the plains, from the impervious regions to the fertile zones, everywhere it is possible to increase the average yield of wheat per hectare. Then, if this is possible, this must be done.

To reach this luminous goal I count on you, comrade farmers. You experts must break the bread of advanced technical knowledge, you must rejuvenate agriculture in those places where it dallies, using backward systems, you must hasten the work of improvement where improvement has already begun; you must be the animators, you must reach out everywhere, down to the last village, down to the last man.

And now that I am going in the name of the Government—and I make bold to say in the name of the nation—to reward all the farmers who have deserved well of the nation in this campaign, I beg you, comrade farmers, on your return to your villages, and on resuming contact with the agricultural masses, to tell them that the Government is thoughtful of the problems of agriculture; I beg you to announce that the Government looks on the peasants, in war and in peace, as the fundamental forces on which the country relies for its success. (Rome, 11th October 1925, III.)

7. THE TIME FOR A PREVALENTLY URBAN POLICY HAS PASSED

Comrade Farmers, Gentlemen: This is the third time that we meet here in Rome to distribute the rewards earned by our fine country folk, who, fighting as they do in the front rank, deserve to be called the "light infantry,"



ARTIFICIAL LAKE ON THE SELE.
Courtesy of Consorzio di Bonifica di Pastum.

the "*veliti*," of Italian agriculture. There is no need to insist on the moral significance of this ceremony, which has among its purposes that of calling the attention of the whole Nation to the fundamental problems of agriculture, enabling me to draw up the final balance-sheet for the year.

How have things gone in the crop year 1928? All considered, fairly well. The start was extremely promising. The cocoon crop was satisfactory, from the price standpoint among others. The first hay crop was a very heavy one; then the excessive rains in April and May injured the wheat in some districts. Nevertheless, if the shrinkage caused by the hot winds of the first ten days of June, the zephirs of the poets but the sirocco of our more prosaic days, had not injured the wheat when it was just about to ripen, the crop would probably have amounted to those 7 million metric tons which were announced a little too previously by the optimists. The final results have reduced the figure to 6,221,480 metric tons.

This is just 1 million metric tons more than were obtained in 1927. Under the adverse or not altogether favourable conditions which prevailed, the crop is a good one. Moreover, prices did not fall at the time of the harvest. The farmers wisely resisted the temptation to rush their wheat to market at any price, and this resistance on their part must be ever better organized in future.

The sugar-beet crop was a poor one, as was also the hemp crop. Rice, grapes, olives and citrus-fruit gave good yields and the prices were satisfactory. Other minor crops failed. The maize crop, more especially in Venetia, was destroyed by the drought.

This sums up the 1928 crop year, which closes with a profit, although not as high a one as had been hoped for and deserved. The greatest losses were those caused by the drought, which persisted throughout the Mediterranean Basin from May to September. For three long consecutive months not a drop of rain fell in Italy. This

is shown by my meteorological diary which I keep with special care. This fully explains the enthusiasm for irrigation which now animates Italian farmers, an enthusiasm which will give excellent results, for there is no lack of lakes, rivers, and underground sources in Italy.

As I have already said, the water is there, all we need do is to find it and espouse it to the sun. The cause of the prolonged drought uninterrupted by atmospheric precipitations (except for some destructive cyclones) are to be sought in the distressing and total baldness of our Appenines. No great forests offer vast cool areas of shade liberating those currents of air which coagulate and congest the aqueous vapour suspended in the higher atmospheric strata, causing it to precipitate as rain. While waiting for the trees, planted by the hundred million, to accomplish among many others this fundamental function of atmospheric equilibrium—and we shall have to wait a long while, not less than half a century—we must provide ourselves without delay with irrigation plants. Some have been started in Lombardy and in Venetia which will reclaim wide areas and are worthy by their importance of Fascist Italy. As you know, the Fascist Government not only encourages but gives tangible support to these enterprises.

Since I have placed agriculture in the foreground of our national economy, since I have shown by deeds that agriculture should be preferred to all other forms of production, a new spirit, a mixture of confidence, tenacity, pride, has come to the rural classes from one end of Italy to the other. Armies are perfected by fighting; and this is happening in the case of the rural army of Italy, which after these campaign years has improved its cadres and closed its ranks, determined to march forward. The fine challenge given by the farmers of Brescia to those of Cremona is evidence of moral strength which can withstand all difficulties and is anxious to overcome them.

It is not for me to re-enumerate the measures taken by the Government on behalf of agriculture. You remem-

ber them, indeed, some of them are quite recent. All I will say is that I follow the vicissitudes of Italian agricultural activities day by day and diligently. Let me say that I have done and I shall do all in my power to make agriculture more prosperous and to increase the prosperity of the silent and prolific rural populations. The integral reclamation of our national territory is an enterprise the achievement of which would alone suffice to make the revolution of the Black Shirts glorious down the centuries.

This undertaking, which will soon be embodied in a law of the State, and will be enforced immediately, organically, regularly, indicates the direction followed by the régime, which I would express in the following formula: the time for a prevalently urban policy has passed. All our cities, moreover, have had at their disposal thousands of millions of lire for useful purposes and also for embellishments and even for superfluous prettinesses. The time has now come (and it is overdue) for devoting thousands of millions of lire to the country if we wish to avoid those phenomena of economic depression and demographic decadence which distress and alarm other nations.

I will say without false modesty that in the six years of Fascist régime, Italian agriculture has made gigantic progress, due in the first place to the peace ensured to the country-folk, and in the second place to the technical progress secured in all branches, and last but not least, to the prestige and the rank assigned it by the Fascist régime.

Before distributing the prizes I wish to pay a tribute of praise to the directors of the syndical organizations who everywhere have collaborated sincerely, loyally, fascistically in the work; and to the extension service workers, whom I consider, jointly with all diligent and active landowners, as the officers of our army. I also wish to mention the professors of the agricultural colleges, the teachers of the rural schools, the officers of the Army, and lastly the parish priests who have organ-

ized 40 propaganda meetings in connection with the wheat campaign, while 82 of them have been assigned prizes. This shows that the wise, religious cure of souls can very well be allied to practical activities which aim at increasing the prosperity of the rural populations.

Finally, my praise and my applause go out to the mass of large and modest farmers, small landowners, crop-sharing farmers, who have all responded to my summons with a unanimity which may be described as "touching," when we consider the isolation and the neglect in which the country folk were all too long left. In the villages, the farms, the cottages, this summons has been heard, and the innumerable mass of rural infantry has moved forward, solemnly, towards new victories. Of this mass a small vanguard of 50,000 men is gathered here in Rome on the tenth anniversary of that Victory which was won above all with the blood of the peasantry.

I trust that the wireless has given me the great joy of conveying my voice and my fraternal greetings to the agriculturists who, in many parts of Italy, have gathered to hear me. My greetings also go to the country-folk who in Tripolitania, Cyrenaica, and Somalia are engaged in their work of pioneers, breaking up desert lands, and bringing once more life and fertility there where for centuries aridity and death have prevailed. These comrades deserve a special mention, for their task is being performed under severer conditions and under a more adverse climate. All the farmers in Italy and the colonies know that their interests are very dear to me, they are aware that I am particularly thoughtful of their lot. To increase to the utmost extent possible the fertility of the Italian soil, to raise the standard of life of millions and millions of country folk who labour with sacred tenacity, this is one of the fundamental purposes of the Fascist régime and one which we shall not fail to carry out.

And now, comrades, the password for the fourth year of our wheat campaign is this: diligent preparation of the soil; selected seed; sowing in rows wherever pos-

sible; the use of natural manure and chemical fertilizers as advised by experts. An average of one other quintal per hectare, and we shall be on the eve of victory. Yet one other quintal and we shall have attained what seemed until yesterday a dream or a prodigy: the Italian soil will provide the bread for all the Italian people! (Rome, 14th October 1928, VI.)

8. FASCISM AND THE PEOPLE

. . . I wish to compliment the Italian working people. When I decided to rescue the lire—for I could not admit that the lire was to be placed on a level with a punched tram-ticket—I well knew that I should have to lay very heavy burdens, more especially on the working people, whose wages allow of very narrow margins. I was therefore quite aware of this need and clearly realized it. Well, now that the battle of the lire may be said to have been brought to a successful issue, I must state that difficulties, complaints, grumblings, instigations to rebel have come to me from all classes of the population except from the masses of the Italian people.

It is necessary that the Italians should know, that the whole world should know, that the Italian workers and peasants have accepted wage reductions which may be estimated gloriously at some milliards of lire; therefore, for their part, they have contributed magnificently to meet the needs of the battle of the lire. This must not be forgotten; it will not be forgotten.

I have no need to recapitulate all that the Fascist régime had done for the Italian people. It is more than criminal, it is idiotic to suppose that a Government, aware of its purposes as is the Fascist Government, should not go whole-heartedly towards the mass of the Italian people. Fascism—it is well to restate it once more—did not arise to protect certain classes, to protect certain interests, or certain categories; it was a healthy movement of the Italian people, and it intends to remain a movement of the people. The whole work of the Fascist Government, down to the daily minutia of its task, the whole legislation

of the Fascist Government, has been directed towards one sole purpose: that of materially and morally improving the Italian people. From this point of view the Fascist régime—which some people see impersonated in that evil tyrant who now has the pleasure of speaking to you—the Fascist régime in the field of social legislation is in the vanguard of the nations, even of those who fly the Soviet flag or the flag of democracy.

We are still in the syndical phase. I believe you will be interested in hearing what I think of the duration of this syndical phase. Its duration will not be short; we shall still remain for a considerable time in what I term the syndical phase. And this for reasons of a general character, because of the European crisis which is not yet healed, and because there are still many incognita on the horizon. In the second place because we must improve the syndical organization, improve its cadres, its directors, its organic constitution.

Sometimes those depressed and depressing people whom we find at every turn and who do not or will not realize what is happening, criticize and make their reservations on the syndical cadres in which the Italian working people are organized. Well, let me say, with full knowledge of the situation, that the directors of the Italian syndical movement are almost all worthy of their mission and worthy of their responsibilities.

We must react energetically not only against profiteers, who think of the revolution as a personal affair which may perhaps lead to an annuity; we must react against all those who think they can hitch their own personal matters to that vast and complex phenomenon which is the Fascist Revolution. And above all we must react against slanderers, against grumblers, against defeatists, who try to turn an episode into a universal rule, and make use of an incident to calumniate a whole movement.

We must still further improve the quality of our masses, we must see that the vital sap of our doctrine circulates freely through the Italian syndical organism. When these conditions have been secured we shall go forward,

daringly but methodically, with the third and last phase: the corporative phase of the Italian State. The present century will witness a new economic system. Just as last century witnessed capitalist economy so the present century will witness corporative economy. There is no other means, Comrades, of overcoming the tragic antithesis between capital and labour, the corner-stone of the Marxist doctrine which we have overstepped. We must place capital and labour on the same plane; we must give to both equal rights and equal duties.

Just think of the depth, the beauty, the strength of our revolution, which faces and settles this age-long conflict which torments and poisons the life of so many nations the world over. We have dared this, and we have dared it because we have brought about a special atmosphere. Now and always the spirit is the lever of all great things; without a moral atmosphere of enthusiasm, of passion, of devotion, of sacrifice nothing can be done; seated at a desk great projects, great undertakings, legislation itself remain dead letters if they are not animated by the powerful breath of an ideal.

Comrades, this is why you are not only organizers of syndicates; long before that you were Fascists; for it is only on the plane of ideas that interests can be reconciled. Interests are only one sector of life; but we wish to embrace, to understand, to harmonize the whole life of the Italian people.

For this reason you must consider yourselves at every moment of your day, in every instant of your work, in small things as in great things, soldiers of the revolution, ready to defend it here and outside here, with your arms, your blood, your life. (Address to the Third National Congress of Fascist Syndicates, 7th May 1928, VI.)

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9. THE CORPORATIVE STATE

. . . You will remember that on the 16th of November of Year X, in the presence of the thousands of Fascist party officials assembled in Rome for the decennial celebration

in Piazza Venezia, I asked: Is this crisis, which has held us in its grip for the past four years—we have now entered on the first month of the fifth year—a crisis within the system or of the system?

A grave question, a question to which it was not then possible to give an immediate reply.

To-day I can answer it: the crisis has penetrated so deeply into the system that it has become a crisis of the system.

It is no longer an illness, it is a constitutional disease.

We can now assert that the capitalistic mode of production has been superseded, and with it the theory of economic liberalism which illustrated and defended it.

I wish to trace for you, in its main lines, the history of capitalism in the past century, which can be defined as the century of capitalism. But first of all, what is capitalism? Capitalism must not be confounded with the bourgeoisie. The bourgeoisie is quite another thing. The bourgeoisie is a mode of being which can be great or petty, heroic or philistine.

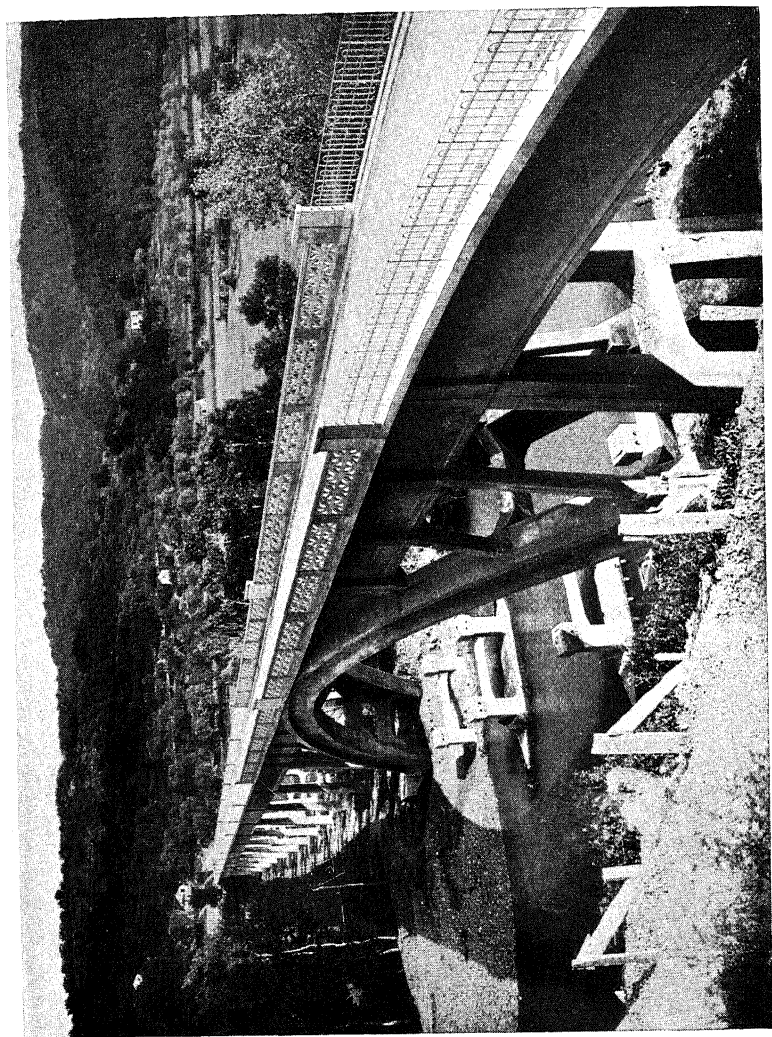
Capitalism, on the other hand, is a specific mode of production, a mode of industrial production.

When capitalism attains its highest expression it is a mode of mass production for mass consumption, financed in mass through the national and international issue of joint stock capital. Capitalism is therefore industrial and has not had manifestations of much importance in the field of agriculture.

Periods of Capitalism.—I would mark three periods in the history of capitalism: the dynamic period, the static period, and the period of decline.

The dynamic period is that going from 1830 to 1870. It coincides with the introduction of the power-loom and the appearance of the steam-engine. The factory arises. The factory is the typical manifestation of industrial capitalism; it is the period of wide margins, and therefore the law of free competition and the struggle of all against all can have full play.

Some fall by the way, others die, and the Red Cross



CHIEF IRRIGATION CANAL ON THE LEFT OF THE SELE.
AQUEDUCT BRIDGE OVER THE RIVER CALORE.
Courtesy of Consorzio di Bonifica di Pastum.

picks them up. This period also has its depressions, but they are cyclical depressions, neither long nor universal. Capitalism still has such vitality and such power of recovery that it can get over them brilliantly. It is the period in which Louis Philippe exclaims: "Get rich." Urbanism develops. Berlin which had a hundred thousand inhabitants at the beginning of the century touches the million; Paris from 560,000 at the time of the French revolution also proceeds towards the million. The same can be said of London and the Transatlantic cities. During this first period of capitalism selection really works. There are also wars.

Those wars cannot be compared to the World War we have lived. They are short wars. The Italian one of 1848-9 lasts 4 months the first year and 4 days the second; that of 1859 lasts a few weeks. The same holds good of the war of 1866. Nor are the Prussian wars of longer duration. That of 1864 against the Schleswig Holstein lasts a few days, that of 1866 against Austria, a continuation of the former one, lasts a few days and closes at Sadowa. Even that of 1870, which counts the tragic days of Sedan, does not last more than two seasons.

Those wars, I would almost say, stimulate in a certain sense the economic activities of the nations, so much so that barely eight years later, in 1878, France is once more on her feet, and can organize the world exhibition, an event which gives Bismarck pause for thought.

We will not call what was going on in America heroic. That word should be reserved exclusively for events of a military nature; but undoubtedly the conquest of the Far West was hard and adventurous, and had its risks and its victims like a great conquest.

This dynamic period of capitalism begins with the advent of the steam-engine and closes with the cutting of the isthmus of Suez.

It is a period of forty years. During those forty years the State looks on, is inactive, and the theorists of liberalism say: you, State, have but one duty, that of acting in such wise that your existence is not even perceived in

the economic sector. You will govern all the more successfully the less you concern yourself with problems of an economic nature.

Economic activities in all their manifestations are therefore limited only by the penal code and the commercial code.

But after 1870 this period changes.

We no longer have the struggle for life, free competition, the selection of the fittest.

We can note the first symptoms of fatigue and of deviation in the capitalistic world.

The era of cartels, syndicates, consortia, trusts opens. I shall certainly not pause to note for you the differences existing between these four institutions.

The differences are inconsiderable, or almost so.

They are like those between rates and taxes.

Economists have not yet defined them. But the taxpayer who has to meet them, finds it quite futile to discuss the matter as, whether they be rates or be taxes, they must be paid.

Economic Liberalism and Customs' Protection.—It is not true, as an Italian economist of the liberal school of economy has said, that trustified, cartellized, syndicated economy is a consequence of the war. No; the first coal cartel arose in Germany, in Dortmund, in 1879.

In 1905, ten years before the World War broke out, there were 62 metal cartels in Germany.

There was a potash cartel in 1904, a sugar cartel in 1903, there were ten cartels in the glass industry.

In that period the direction of industry and commerce in Germany was divided up between 500 to 700 cartels.

In France in 1877 the industrial office of Longwy was opened to deal with the metal industry, in 1888 another was opened to deal with petroleum, in 1881 all the insurance companies had amalgamated. The Austrian iron cartel is of 1873; by the side of the national, international cartels grow up. The glass bottle syndicate dates back to 1907. The plate and looking-glass syndicate

which brought together French, English, Austrian and Italian manufacturers, is of 1909.

In 1904 the rolling mills formed an international cartel. The zinc syndicate started in 1899.

I will spare you a tedious list of all the chemical, textile, shipping and other syndicates organized in that period of history.*

The British-Chilean nitrate cartel was started in 1901.

I have here a complete list of national and international trusts which I will spare you. It is safe to say that there is no sector of the economic life of the countries of Europe and America in which these characteristic manifestations of capitalism are not found.

But what is the consequence? The end of free competition. As the margins were reduced, capitalistic enterprise considered that it was better to come to an understanding rather than fight, to form alliances, to amalgamate, to divide up the markets and distribute the profits.

Even the law of supply and demand is no longer a dogma, for it is possible through cartels and trusts to act both on demand and supply; at last this coalesced, trustified, capitalistic economy turns to the State. What does it ask for? Customs' protection.

Free trade, which is only a wider aspect of the doctrine of economic liberalism, free trade receives a death blow. Indeed the first nation to raise almost impassable barriers was America. And now for some years England herself has rejected all that which seemed until now traditional in her political, economic, and moral life, and has taken to protection of an increasingly pronounced kind.

Super-Capitalism and the Standardization of Mankind.—The war came. After the war and as a result of the war we had the inflation of capitalistic enterprise. The scale of the concerns rose from the million to the billion. Seen from afar the so-called vertical constructions give the impression of something monstrous, Babelic.

The dimensions of business enterprise exceed the

possibilities of man: formerly spirit dominated matter, now matter bends and subdues the spirit.

What was physiology becomes pathology, everything becomes abnormal. Two personalities—for in all human vicissitudes representative men start up on the horizon—two personalities can be identified as typical of this situation: Kreuger, the Swedish match-man, and Insull, the American business speculator.

With that brutal frankness which is our Fascist custom let us add that in Italy there have also been manifestations of this kind; but, taken as a whole, they have not touched such heights.

At this stage, super-capitalism finds its inspiration and its justification in a utopia, the utopia of unlimited consumption.

The ideal of super-capitalism would be the standardization of the human race from the cradle to the grave.

Super-capitalism would like all babies to be born the same length so that cradles could be standardized, all children to like the same toys, all men to dress in the same uniform, to read the same book, to have the same tastes at the cinema, and all to desire a so-called labour-saving machine.

This is not the result of caprice, it is in the logic of events, for only thus can super-capitalism make its plans.

When does a capitalistic business cease to be an economic phenomenon? When its size transforms it into a social phenomenon.

It is then that the capitalistic concern, when in difficulties, throws itself like a dead weight into the arms of the State.

It is then that State intervention begins and becomes ever more necessary.

It is then that those who ignored the State seek it out anxiously.

Things have now gone so far that if in all the countries of Europe Governments were to go to sleep for 24 hours, that parenthesis would suffice to precipitate a disaster.

At the present time there is no branch of economic activities in which the State is not called on to intervene.

Were we—it is a mere supposition—to give way to this latest phase of capitalism we should slide into State capitalism, which is nothing more nor less than State socialism reversed.

We should one way or the other arrive at the bureaucratization of the economic activities of the nation.

This is the crisis of the capitalistic system considered in its universal significance. But we are concerned with a specific crisis in our quality of Italians and Europeans.

Why Europe is no longer at the Head of Civilization.—There is a European, a typically European crisis.

Europe is no longer the continent which guides civilization.

This is the dramatic fact which those whose duty it is to think must recognize and point out to others.

There was a time when Europe dominated the world politically, spiritually, economically.

Politically through her political institutions.

Spiritually through all that the European spirit has produced down the ages.

Economically, because it was the only highly industrialized continent.

But beyond the Atlantic a great industrial and capitalistic business world has grown up. In the Far East Japan, after coming into touch with Europe during the war of 1905, is advancing by rapid stages towards the West.

Here the problem is a political one.

Let us talk of politics, for this Assembly is also exquisitely political. Europe can still try to resume her place at the helm of world civilization if she can find a minimum of political unity.

The policies we have steadily adhered to should be followed.

A European political entente cannot however come about unless great injustices are first repaired.

The Four Power Pact.—We have reached an extremely

serious juncture in the situation: the League of Nations has lost all that could confer on it political significance and historic bearing.

Meantime the very country which invented it has remained outside.

Russia, the United States, Germany and Japan are absent.

The League of Nations started from one of those maxims which when announced sound very beautiful; but which when afterwards considered, anatomized, sectioned, turn out to be absurd.

What other diplomatic acts are there which could restore contact between the Governments?

Locarno? Locarno is a different matter. Locarno has nothing to do with disarmament. The way out does not lie that way.

Of late a great silence surrounds the Four Power Pact. No one mentions it but all think of it.

For this reason we do not intend to resume initiatives or to hurry up the stages of a situation which must logically and fatally ripen.

Is Italy a Capitalist Country?—And now let us enquire whether Italy is a capitalist country.

Have you ever asked yourselves that? If by capitalism we mean that complex of usages, customs, technical progress now common to all countries, we can then say that Italy is capitalistic

But if we go more closely into the matter and examine from a statistical standpoint the economic consistency of the several categories of the population, we then secure data which enable us to say that Italy is not a capitalist country in the meaning now currently given to that term.

On the 21st of April 1931 farmers farming their own lands numbered 2,943,000, tenant farmers 858,000.

There were 1,631,000 crop-sharing farmers and peasants, 2,475,000 other agriculturists, farm hands, wage workers and casual agricultural labourers. The total population directly and immediately dependent on agriculture numbered 7,900,000.

There were 523,000 manufacturers, 841,000 traders, 724,000 craftsmen working on their own account or for others, 4,283,000 industrial wage-workers, 849,000 servants and carriers, 541,000 persons enrolled in the armed forces of the State inclusive of the police.

The liberal arts and professions accounted for 553,000, public and private services employed 905,000, the total of this group added to the other gives us 17 million.

There are not very many proprietors and rentiers in Italy, only 201,000; there were 1,945,000 students and 11,244,000 women minding their homes.

A further figure of 1,295,000 refers to people belonging to other non-professional categories, a figure which can be interpreted variously.

Italy should remain a Country of Diversified Economy.— You can see at once from this picture that the economic activities of the Italian nation are varied, complex, and cannot be defined as belonging to one type; especially so as the manufacturers represented by the impressive figure of 523,000, are almost all at the head of small or medium sized concerns. Small businesses are those with a minimum of 50 and a maximum of 500 workers; those ranging from 500 to 5 or 6 thousand workers are medium sized; above them comes large scale-industry which sometimes runs into super-capitalism.

This compendium also shows how mistaken Karl Marx was when, following up his apocalyptic doctrines, he claimed that society can be divided into two classes clearly divided and eternally irreconcilable.

In my opinion Italy should remain a country of diversified economy, with a strong agriculture, the foundation of all, so much so that the slight industrial revival recently noted is due, in the unanimous opinion of all who understand such matters, to the fairly good crops of the last year or two.

A sound small and medium-sized industry; a banking system which does not speculate, a commerce fulfilling its irreplaceable task of bringing commodities rapidly and rationally to consumers.

The Guilds.—The statement I submitted yesterday evening defined the guild as we intend and wish to create it, and it also defined its objectives. The guild, it says, is formed to expand the wealth, the political power, and the well-being of the Italian people. These three objectives are conditional each on the other.

Political strength creates wealth, and wealth in its turn invigorates political action.

I should like to call your attention to the objective stated: the well-being of the Italian people. It is essential that these institutions we have set up should at a given moment be felt and perceived by the masses themselves as instruments through which those masses improve their standard of life.

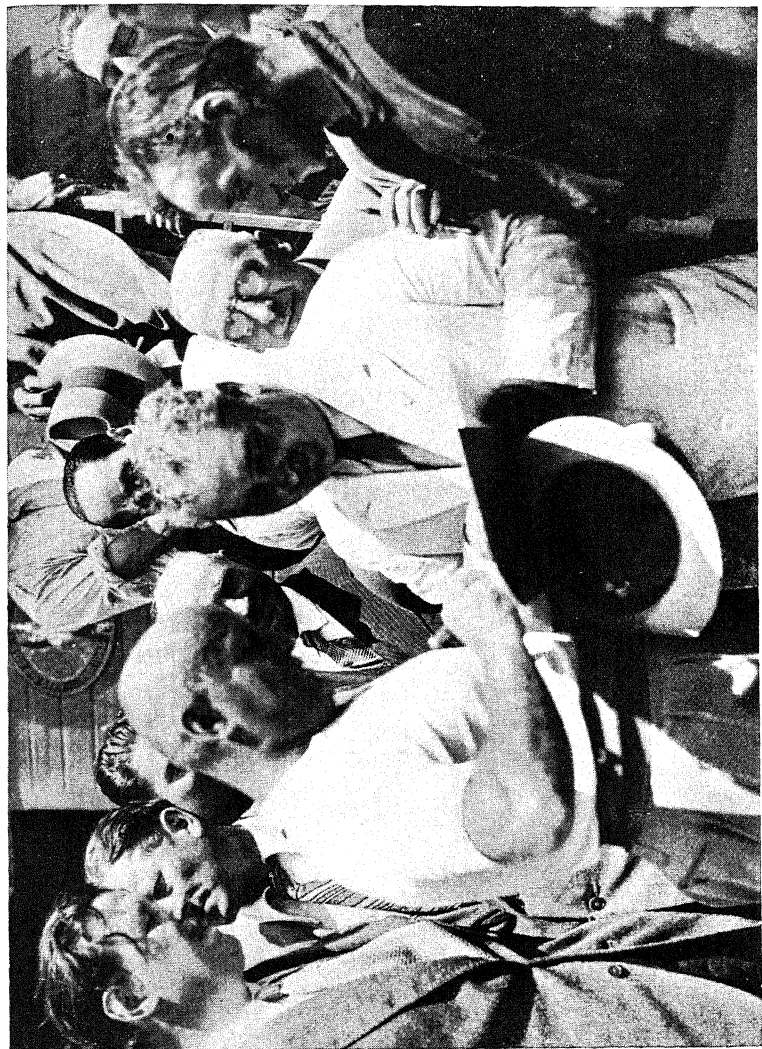
At a given moment the worker, the tiller of the soil, must be able to say to himself and to his family: if I am really better off to-day it is due to the institutions which the Fascist Revolution has created.

In all national societies there is an inevitable residuum of poverty. A certain number of people live on the margin of society; special institutions deal with them. Vice versa, that which distresses our spirit is the poverty of strong, capable men, feverishly and vainly seeking work.

It must be our wish that the Italian workers, who interest us as Italians, as workers, and as Fascists, should feel that we are setting up institutions not only to give expression to our doctrinal views but that we are setting up institutions which at a given moment are to yield positive results; concrete, practical, and tangible.

I will not dwell on the conciliatory functions which the guilds can exercise and I see no drawback to the practice of conciliation.

Whenever the Government has to take measures of some importance it already consults the parties concerned. If to-morrow this consultation on certain specified matters becomes obligatory I see no harm in it, for everything that brings the citizen into closer contact with the State, everything that makes the citizen part of the machinery



MUSSOLINI SIGNS THE RECEIPT FOR WAGES FOR THREE HOURS' WORK AT LITTORIA,
9TH JULY 1934.

Courtesy of Opera Nazionale per i Combattenti.

of the State, is advantageous to the social and national aims of Fascism.

Our State.—Our State is not an absolute State, still less an absolutist State far removed from men and armed only with laws, inflexible as laws should be.

Our State is an organic, human State, desirous of adhering to the realities of life.

The bureaucracy itself is no longer, and in future will be ever less desirous of acting as a diaphragm between that which is the activity of the State and those which are the interests and effective and concrete needs of the Italian people.

I am quite certain that the Italian bureaucracy, which is admirable, will work with the guilds, in the future as it has done in the past whenever this is necessary for the better solution of the problems at issue.

The point however, which has most keenly interested this Assembly is that which purposes to confer legislative powers on the National Guild Council.

Running ahead of the times, some have already spoken of the end of the present Chamber of Deputies. Let us explain. As the legislature is now drawing to a close the present Chamber of Deputies will have to be dissolved.

In the next place, as in these months time is lacking to set up the new guild institutions, the new Chamber will be chosen by the same procedure as in 1929.

A Constitutional Reform.—But at a given moment the Chamber of Deputies will have to decide on its own fate. Are there any Fascists about who feel inclined to weep at this hypothesis?

If there are, let them know that we shall not dry their tears. It is quite conceivable that a National Guild Council may replace *in toto* the present Chamber of Deputies. The Chamber of Deputies has never been to my taste. At bottom, this Chamber of Deputies has now become anachronistic even as regards its name: it is an institution we found and which is foreign to our mentality and to our passion of Fascists.

The Chamber presupposes a world we have demo-

lished; it presupposes the plurality of parties and not infrequently the hold-up of the ministerial diligence. Since the day on which we annulled this plurality, the Chamber of Deputies has lost the essential reason for which it was formed.

With hardly any exceptions the Fascist deputies have risen to the height of their faith and we must conclude that the blood running in their veins was very pure if it has not been poisoned in that environment where every thing exhales the breath of the past.

All this will take place in the not distant future, for we have no undue haste.

The important thing is to lay down the principle, because from that principle the inevitable consequences can be drawn.

When, on the 13th January 1923, the Grand Council was set up, it may have seemed to superficial observers that yet another institute had been founded. No: on that day political liberalism was buried.

When, by creating the Militia, the armed guard of the Revolution, when by the formation of the Grand Council, the supreme organ of the Revolution, a death blow was dealt at all that had been the theory and practice of liberalism we entered definitely on the path of the Revolution.

Now we are burying economic liberalism.

The guilds act in the economic field as the Grand Council and the Militia have acted in the political field.

The guilds mean regulated economy, and therefore also controlled economy, for there can be no regulation without control.

The guilds supersede socialism and supersede liberalism, they create a new synthesis.

One fact is symptomatic: a fact which has perhaps not been adequately considered: that the decline of capitalism coincides with the decline of socialism.

All the socialist parties in Europe are in fragments.

I do not refer only to Italy and Germany, but to other countries as well.

I do not of course say that the two phenomena were conditional one on the other from a strictly logical standpoint, but there existed between them an historic link of simultaneousness.

It is for this reason that guild economy arises at a time in history when the two concomitant phenomena, capitalism and socialism, have already given all that they could give.

We inherit from both that which was vital in each.

A Step forward on the Path of the Revolution.—We have rejected the theory of the economic man, the liberal theory, and we have risen in indignation every time we have heard labour spoken of as a commodity.

The economic man does not exist. Man is integral; he is political, he is economic, he is religious, he is saint, he is warrior.

To-day we are taking a further step forward on the path of the revolution.

Comrade Tassinari truly said that a revolution to be great, to make a deep impression on the life of a people, on history, must be a social revolution.

If you look into things deeply you will see that the French Revolution was eminently social, for it demolished all that remained of the Middle Ages, from tolls to corvées, social because it brought about the vast upheaval of all the landed property system of France and created those millions of landowners who have been and still are one of the solid and sound forces of that country.

Were this not so any one could think he had made a revolution. A revolution is a serious matter; not a palace conspiracy, not a change of Ministry, nor the rise of one party which displaces another.

It is laughable to read that in 1876 the advent of the left to power was described as a revolution.

In conclusion, let us ask ourselves: can the guild system be applied to other countries? We must ask ourselves this question because it is being asked in all other countries; everywhere the matter is being studied and efforts are being made to understand. There is no doubt that

in view of the general crisis of capitalism the guild solution will force itself to the front everywhere, but if the guild system is to be carried out fully, completely, integrally, revolutionarily, three conditions are required:

A single party, so that economic discipline may be accompanied by political discipline and so that above contrasting interests all may be bound together by a common faith.

Nor is this enough. After the single party there must be the totalitarian State, that is to say the State which absorbs in order to transform and give power to all the energies, all the interests, all the hopes of a people.

And this is not yet enough. The third and last and most important condition is to live a period of high ideal tension.

That is why, step by step, we shall give force and consistency to all our realizations, why we shall translate into action all our doctrine. Who can deny that this our Fascist period is a period of high ideal tension? No one can deny it. This is the time in which arms were crowned with victory. Institutions are renewed, the land is redeemed, cities are founded. (Speech to the National Guild Council 14th November 1933, XII.)

APPENDICES

I. ACT OF 24TH DECEMBER 1928—VII NO. 3134: MEASURES FOR INTEGRAL LAND- RECLAMATION

Article 1.

As from the financial year 1929-30 and until the termination of the financial year 1933-4, the limit of the liability for annuities payable by the Treasury as a contribution to the cost of irrigation works and of hydraulic land-reclamation works to be executed under concessions, inclusive also of works for reconditioning mountain-lands affecting the respective circumscriptions, is fixed at 30 million lire for the financial year 1929-30, 40 million lire for the financial year 1930-1, 50 million for the financial year 1931-2, 65 million for the financial year 1932-3, and 65 million for the financial year 1933-4, apart from the limit of the liability which the annual finance laws may fix for other special works for which concessions are granted under Article 3 of the R. Decree of 6th October 1927, No. 1827.

In the case of concessions of farm land conversion works of public interest, any expenditure in excess of the annual appropriation specially assigned for the several kinds of work included in the conversion plan, will be charged to the aforesaid limited credit as also any supplementary Treasury contribution which may be made to the concessionaire on the public works budget.

The special allowances towards the cost of reafforestation, rectification of water-courses, land-reclamation and irrigation works in the Kingdom, confirmed by the Decree-Law of 6th October 1927, No. 1827, are eliminated.

Article 2.

For payments to be provided in connection with irrigation and land-reclamation works for which concessions have been made since the financial year 1929-30 special appropriations of funds must be entered in the budget fixed in the following amounts:

	L.
Financial year 1930-1	13,500,000
„ „ 1931-2	29,500,000
„ „ 1932-3	48,000,000
„ „ 1933-4	69,500,000
„ „ 1934-5	91,000,000
„ „ 1935-6	112,500,000
„ „ 1936-7	134,000,000
„ „ 1937-8	155,500,000
„ „ 1938-9	177,000,000
„ „ 1939-40	193,000,000
„ „ 1940-1	209,000,000
„ „ 1941-2	225,000,000
„ „ 1942-3	241,000,000
„ „ 1943-4	257,000,000

The appropriation of 257 million lire will be maintained unaltered during the whole period comprised within the financial years 1944-5 to 1959-60, and will be reduced in the ensuing financial years proportionately to the gradual extinction of the thirty-year annuities.

Article 3.

The Treasury may grant towards the cost of building rural aqueducts a contribution at the rate of 75 per cent of the cost of the work.

These contributions come under the provisions of the Articles 3, 4, and 5 of the R. Decree of 20th May 1926 No. 1154.

To meet the payment referred to in the above paragraphs the following credits will be entered in the budget of the Ministry of Public Works:

	L.
Financial year 1930-1	2,000,000
„ „ 1931-2	4,000,000
„ „ 1932-3	6,000,000
„ „ 1933-4	8,000,000
„ „ 1934-5	10,000,000
„ „ 1935-6	12,000,000
In the financial years going from 1936-7	
to 1959-60	13,000,000

After the last-mentioned financial year, the credits will be reduced proportionately to the gradual extinction of the annuities.

Article 4.

Article 10 of the codified Act of 30th December 1923, No.

3256, and Article 17 of the R. Decree-Law of 18th May 1924, No. 753 are repealed.

Land-reclamation projects must provide for the works required for supplying drinking water. The respective cost will be included in the estimated cost of the land-reclamation, but the Treasury contribution may in no case be inferior to the 75 per cent foreseen in the preceding article.

Article 5.

The Treasury contribution foreseen by the R. Decree of 7th February 1926, No. 193, for building villages is raised from 10 to 25 per cent of the cost of the work, and the Ministry of Public Works is empowered to increase it to 30 per cent of said cost, taking into account the importance of the undertaking in the public interest and the charges burdening it.

A like contribution may be granted towards the cost of erecting isolated rural buildings, provided they come strictly within the purposes of the reclamation works.

To meet the expenditures referred to in the preceding paragraph, the following appropriations are allowed in the budget of the Ministry of Public Works:

	L.
Financial year 1930-1	1,000,000
" " 1931-2	2,000,000
" " 1932-3	3,000,000
" " 1933-4	4,000,000
" " 1934-5	5,500,000
" " 1935-6	7,000,000
" " 1936-7	8,500,000
In the financial years from 1937-8 to	
1958-9 inclusive	10,000,000

In the financial years following on 1958-9 the appropriations will be in keeping with the amounts required for the service of the annuities in force.

Article 6.

In South Italy and in the Islands the roads required to ensure farm-land conversions on the areas dealt with are assimilated to land-reclamation roads and come under the provisions of the Codified Act of 30th December 1923, No. 3256.

Article 7.

For carrying out irrigation works in North and Central Italy the following appropriations, to be entered in the budget of the

Ministry of National Economy, are allowed in addition to the funds already granted by special acts:

	L.
Financial year 1929-30	6,000,000
„ „ 1930-1	7,500,000
„ „ 1931-2	9,000,000
„ „ 1932-3	10,500,000
„ „ 1933-4	12,000,000
„ „ 1934-5	14,500,000
„ „ 1935-6	17,000,000
„ „ 1936-7	19,500,000
In the financial years from 1937-8 to 1957-8	22,000,000

Article 8.

The Ministry of National Economy may contribute with grants not to exceed 40 per cent of the actual expenditure incurred for the execution of the following works in the interest of more than one estate:

- (a) building and reconditioning farm roads;
- (b) supplying drinking water.

To provide for the payment of the aforesaid grants the following appropriations are allowed on the budget of the Ministry of National Economy:

	L.
Financial year 1930-1	1,000,000
„ „ 1931-2	2,500,000
„ „ 1932-3	4,000,000
„ „ 1933-4	5,500,000
„ „ 1934-5	7,000,000
„ „ 1935-6	8,500,000
„ „ 1936-7	10,000,000
„ „ 1937-8	11,500,000
„ „ 1938-9	13,000,000
„ „ 1939-40	14,500,000
„ „ 1940-1	16,000,000
„ „ 1941-2	17,500,000
„ „ 1942-3	19,000,000
In the financial years from 1943-4 to 1958-9	20,000,000

Article 9.

In addition to the appropriations entered on the budget of the Ministry of National Economy for grants and subsidies for the application of electric power to agricultural and land-reclamation purposes, under the provisions of the R. Decrees of 2nd October 1919, No. 1995, and 29th July 1925, No. 1315, the following

appropriations are allowed on the said budget for expenditures related thereto:

	L.
Financial year 1930-1	300,000
" " 1931-2	500,000
" " 1932-3	1,000,000
In the financial years from 1933-4 to 1958-9	1,500,000

Article 10.

In quite exceptional cases His Majesty's Government is authorized to guarantee the capital and interest of debentures issued by consortia of landowners and by corporations formed for the purposes of land-reclamation or farm-land conversion, for the execution of the said works, and the guarantee is given by R. Decree, in consultation with the Ministers of Finance, Public Works, and National Economy, after ascertaining the safety of the transaction.

The Minister of Public Works or of National Economy, as the case may be, may guarantee, for an amount not to exceed 10 million lire, the loans made through the National Association of Land-Reclamation and Irrigation Consortia to newly established consortia for meeting initial working expenses.

Article 11.

The person in whose behalf delegations have been issued to the consortial contributions or land super-tax, as security for credits connected with the execution of hydraulic land-reclamation, irrigation or farm-land conversion works, may transfer by endorsement the rights arising from said delegations.

The endorsement must be written and signed by the endorser on the deed, and notified to the agent charged with the collections.

Article 12.

Any available funds which at the close of each financial year may remain over from the appropriations authorized by the present decree go to increase the amounts appropriated for the following financial year.

Payments on account of Treasury annuity grants for works contemplated by the present Act, will start from the financial year 1929-30, on the basis of fixed expenditure rolls.

By a decree issued by the Minister of Finance any funds which may exceed the requirements of each separate category of works, may be transferred to increase the appropriations for other groups of works, even should they pertain to other departments.

Article 13.

His Majesty's Government is authorized to take measures having force of law amending and completing the existing rules regarding hydraulic and agrarian reclamation works, farm-land conversions, and agrarian credit.

In particular, the Government will take steps to regulate the relations between landowners and tenants of farmlands subject to improvement and for the restriping of small holdings subject to farm-land conversions.

Given in Rome, 24th December 1928, VII.

II. R. DECREE, 13TH FEBRUARY 1933, XI,
NO. 215, CONTAINING THE NEW RULES
FOR INTEGRAL LAND-RECLAMATION

published in the "Gazzetta Ufficiale" of 4th April 1933, XI, No. 79.

. . .

Article 1.

The rules for integral land-reclamation are approved in accordance with the text annexed to the present decree and endorsed, on our order, by the Minister introducing them.

We order that the present decree, to which the seal of State is affixed, be inserted in the official collection of the laws and decrees of the Kingdom of Italy, commanding all concerned to observe and enforce them.

Given in Rome, on 13th February 1933, Year XI.

VICTOR EMANUEL.

Mussolini, Acerbo, De Francisci, Jung, Di Crollanza.

TEXT OF THE RULES OF INTEGRAL LAND-
RECLAMATION

PART I

ON INTEGRAL LAND-RECLAMATION

Article 1.

Integral land-reclamation is provided for in the public interest, by means of reclamation works and land improvements.

Reclamation works are those carried out under a general plan of works and co-ordinated activities, ensuring marked hygienic, demographic, economic and social advantages in circumscriptions containing lakes, ponds, marshes and swamp-lands; or consisting of mountain lands in which the hydro-geological and

forestry conditions are unsatisfactory, or lands under extensive utilization for serious reasons of a physical or social nature, and susceptible, if these were removed, of radically modifying their production.

Works of land improvement are those carried out for the advantage of one or more estates, independently of a general reclamation plan.

PART II

ON LAND-RECLAMATIONS

Chapter I

On the Classification of Circumscriptions and on the General Reclamation Plan

Article 2.

Land-reclamation circumscriptions belong to two categories. The first category comprises those of exceptional importance, more especially for purposes of land-settlement, and which require for these purposes works entailing very heavy charges on the owners concerned; the second category comprises all the others.

Within the aforesaid circumscriptions, the State undertakes, in so far as they are required for the general purposes of the reclamation scheme:

(a) works of reafforestation and replanting of deteriorated woods; the rectification of the mountain sector of water-courses; the consolidation of their banks, if need be by meadows or wooded grazing-lands; the hydro-agrarian reconditioning of the said banks, in so far as such works are carried out in the public interest to ensure the stability of the land and the proper flow of the water;

(b) the reclamation of lakes and ponds, marshes and swamp-lands, or lands on which natural drainage is deficient;

(c) the consolidation of cliffs and the plantation of trees for wind-screens;

(d) works for supplying drinking water to the rural population;

(e) protective works against injury by water, and for the supply and utilization of water for agricultural purposes;

(f) the erection of electric power conversion boxes and the installation of fixed or movable wires for the distribution of electric power, available for agricultural purposes over the whole circumscription or a considerable part thereof;

(g) roads, buildings, and other works of collective interest to the whole circumscription or a considerable part thereof;

(h) the consolidation of several lots, even if belonging to different owners, into suitable farm units.

The owners are responsible for all the other works considered necessary for the purposes of the reclamation plan, and are required to carry them out.

Article 3.

The classification of first-category land-reclamation circumscriptions is provided for by laws, that of second-category circumscriptions by Royal decrees.

In each case the proposal of classification is made by the Minister of Agriculture and Forests, jointly with the Ministers of Finance and Public Works, after consulting a special committee appointed by Royal decree on the designation of the Minister of Agriculture and Forests.

In the case of the classification of first-category circumscriptions, the Commissariat for Integral Migrations and Land Settlement is also consulted.

The fixing of the boundaries of circumscriptions subject to the land-reclamation obligations stated in Article 2, and of the territories required to contribute to the cost of those works for which the Government is responsible, the cost of which is not met in full by the Treasury, as set forth in paragraph 1 of Article 7 of the present decree, is provided for by a decree of the Minister of Agriculture and Forests.

Article 4.

For each classified circumscription a general land-reclamation plan must be drawn up, containing the general scheme of the works for which the Government is responsible, and setting forth the fundamental lines by which subsequent agricultural conversions will be guided in so far as they are necessary for achieving the purposes of the reclamation and for estimating presumptive economic and other results.

In the case of first-category circumscriptions, the general plan must comply with the aims and purposes of land-settlement, and, in the case of circumscriptions situated in malarious zones, the adoption of the requisite means for preventing the spread of malaria and for the protection of the labourers engaged on the work against that disease, must be provided for.

The general plan is published along with the procedure laid

down in the regulations, and is approved by the Ministry of Agriculture and Forests, which also acts on any appeals presented at the time of publication.

Article 5.

Lands included in a circumscription on which, under the general land-reclamation plan, a lien is established in accordance with the provisions of Chapter I of the R. decree of 30th December 1923, No. 3267, are considered as subject to said lien fifteen days after the publication of the Ministerial decree approving the said plan and acting on appeals, if any, provided the plan fixes the boundaries of the zone to be bonded.

Should the plan not fix those boundaries, the project in which they are fixed will be made public and approved under the terms of Article 4. The land is subject to the lien fifteen days after the publication of the respective decree of approval.

As from the date of the decree approving the general land-reclamation plan, any changes in the use to which the lands are put which may be required for carrying out the said plan, can be made without the need of observing the rules laid down in Chapter I of the R. Decree of 30th December 1923, No. 3267.

Article 6.

The Ministry of Agriculture and Forests can make studies and carry out research work, experimental or other, required for drafting the general plan and the reclamation projects, as also for the compilation of the said plan.

Chapter II

On the Cost of the Works and its Distribution

Article 7.

The cost of works mentioned under Article 2, letter (a) and those for regulating low-land water courses, when required for the reclamation of circumscriptions located for the most part in Julian Venetia, the Tuscan Maremma, Latium, the South and the Islands, is met exclusively by the Treasury.

The expenditure on other works for which the Government is responsible is met by the Treasury to the extent of 75 per cent in North and Central Italy, exclusive of Julian Venetia, the Tuscan Maremma, and Latium, and to the extent of 87·50 per cent in those and in the other regions.

In the case of first-category reclamation circumscriptions, the

Treasury contribution may be raised respectively to 84 and 92 per cent.

When the execution of land-reclamation works ensures to provinces and communes a saving of expenditure which they would otherwise have to meet, the Government may require from the said bodies, apart from any quota to which they may be liable as owners, a contribution not to exceed the said saving, and in no case exceeding one fourth of the Treasury contribution.

Works for regulating water-courses, required for the reclamation of circumscriptions not located for the most part in Julian Venetia, the Tuscan Maremma, Latium, the South, and the Islands, are subject, as regards the distribution of costs, to the regulations implementing the laws on hydraulic works, due account being taken of the category to which they belong.

Article 8.

The Ministry of Agriculture and Forests determines which categories of the works for which the owners are responsible under the last paragraph of Article 2, are entitled to obtain a grant from the Treasury or a contribution towards interest charges payable on the loans.

The grant towards expenditure on works recognized as entitled thereto is, as a rule, that laid down in Article 44 of the present decree.

Article 9.

When the economic results of the reclamation promise to be surely favourable, the quota of expenditure charged to the Treasury for the works for which the Government is responsible, and the grant for those for which the owners are responsible, may be reduced, provided that the reduction be not such as to deprive the owners of all the advantage they would derive from the reclamation.

In the case of the works referred to under Article 2, letter (f), the quota of expenditure charged to the Treasury may not exceed 60 per cent.

Article 10.

Owners of real estate in circumscriptions deriving benefits from land-reclamation, including the Government, provinces, and communes for any properties belonging to them, are required to contribute to the expenditure on those works for which the Government is responsible, the cost of which is not charged exclusively to the Treasury.

The perimeter within which such contributions are due, referred to in Article 3, is published by entry in the public registers.

Article 11.

The distribution of the quota of expenditure among the land-owners is made, in its final form, on the basis of the advantages accruing to each as a result of the reclamation works for which the Government is responsible or of separate independent groups of such works; and, provisionally, on the basis of approximate and presumptive data on the advantages obtainable.

The final distribution, and the equalization payments, if any, take place after the completion of the last lot of the reclamation work has been ascertained, as provided for under Article 16.

The conditions on which the distribution is made are laid down in the articles of association of the consortia, or by subsequent decisions to be approved by the Ministry of Agriculture and Forests. In the absence of consortia, the conditions are laid down by the Ministry itself.

Article 12.

The draft principles for regulating the distribution, both provisional and final, of such expenditure are published under the provisions of Article 4.

Appeal against them can be made to the Ministry of Agriculture and Forests strictly within 30 days of the date of publication.

An appeal against the action taken by the Ministry in approving the proposed principles, and against its rulings on objections raised thereto can only be made on the ground of legitimacy to the jurisdictional sections of the Council of State.

Chapter III

On the Works for which the Government is Responsible

Section 1.—On the execution of the works.

Article 13.

The execution of the works for which the Government is responsible, required for carrying out the general land-reclamation plan, is provided for by the Ministry of Agriculture and Forests, either directly or by the concession of grants.

Concessions for the work are granted to the consortium of owners of the lands to be reclaimed, or to the owner of the major portion of the aforesaid lands; only when the landowners fail to

take an initiative can the concession be granted to provinces, communes, or their consortia.

Nevertheless, and even when the landowners take the initiative, the concession of works for reafforestation and the rectification of mountain sectors of water-courses may be granted to provinces, communes and their consortia, or to concessionaires for the construction of artificial lakes and reservoirs and for building main road systems, or works for the supply of drinking water to provinces and communes.

Should the concession not be granted to the landowners or their consortia, the Provincial Federation of Agriculturists must be consulted before it is granted to others.

The decree granting a concession for works to be carried out in first-category circumscriptions may require that immigrant labour be employed thereon.

Article 14.

The sub-letting of works granted by the Government is forbidden.

The consent of the Ministry of Agriculture and Forests, after consultation with the National Association of Consortia, is required before agreements are valid under which the concessionaire for a lot of works undertakes to entrust to one sole enterprise the planning and execution, or the execution only, of other successive lots.

Article 15.

When the Government itself provides for the execution of the works, the quotas of expenditure charged to the corporate bodies and individual landowners concerned are provisionally determined on the basis of the cost as estimated in the plans for the execution of the works, and are subsequently settled on the basis of the expenditure actually incurred, after the completion of the single lots, as ascertained under the provisions of Article 16.

The quotas of contribution are payable in not less than 5 and not more than 50 annuities, inclusive of capital and interest, calculated in accordance with the rules laid down in the R. Decree Law of 22nd October 1932, No. 1378.

The annuities run from the 1st day of January following the date of the decree approving the plan for the distribution of the expenditure.

Section 2. On the completion and upkeep of the works.

Article 16.

The Ministry of Agriculture and Forests ascertains the completion of the works on the single lots, as soon as they are found to be in a condition to function satisfactorily.

On ascertaining the completion of the last lot, the Ministry fixes the date after which it will proceed to test the general results of the works and to announce the completion of the reclamation.

This announcement is made by a decree promulgated by the Minister of Agriculture and Forests.

Article 17.

The upkeep and management of the works for which the Government is responsible devolve on the owners of real-estate within the perimeter in which contributions are due, from the date of the announcement of the completion of each lot.

When drainage, inland navigation, or road building works have been carried out for the purposes of the reclamation, upkeep devolves on the Government and on the other corporate bodies on whom the laws dealing therewith place the obligation, from the date of the announcement of the completion of the said works, which, in their case, will be made by the Ministry of Agriculture and Forests jointly with the other Ministries concerned.

The said ministerial announcement, or a subsequent one, may nevertheless provide that the upkeep of roads, other than national roads, be entrusted to the consortium of the landowners concerned in the reclamation, and in that case the Minister of Agriculture and Forests fixes, for successive periods of six years, the amount which the corporate body on whom the upkeep devolves under the provisions of the road-laws, is required to reimburse annually to the land-reclamation consortium.

For the upkeep of reafforestation works and of the others mentioned under letter (a) of Article 2, and for the regulation of the use of rewooded and reconsolidated lands, the rules laid down in the R. Decree of 30th December 1923, No. 3627, hold good.

Article 18.

When the upkeep and management of the works devolves on the landowners, the task is entrusted to a consortium formed *ad hoc*, or to that already organized for the execution of the works.

It pertains to the Government to fix the time for delivering the works to the consortium for the purposes of upkeep, unless a

concession for the execution of the works concerned has already been granted to the consortium, in which case the issue of the decree announcing the completion of the several lots under Article 16 is held equivalent to delivery.

The expenditure on the upkeep of the works from the date of the decree of completion to that of delivery is met by the Government, subject to reimbursement by the landowners concerned.

Article 19.

Should a consortium not have been formed, and should the upkeep and management of the works devolve on the Government, the Ministry of Agriculture and Forests lays down the principles for the distribution, among the landowners concerned, of the cost of said upkeep and management.

The publication of the proposal relating thereto, and the decisions on appeals, if any, are regulated by Article 12.

Article 20.

As from the date of the final announcement of the completion of the reclamation works, as provided for in the last paragraph of Article 16, the Treasury makes no further contribution to the cost of works which may subsequently become necessary, except in the case of those required for renewing machinery for draining or irrigating the land, when the need of such renewal does not, in the opinion of the Ministry of Agriculture and Forests, depend on deficient upkeep.

For the renewal of the aforesaid plants the consortia are required to form a special fund, to be deposited and bonded in the manner which the Ministry shall lay down.

Article 21.

The contributions to the cost of execution, upkeep, and management of land-reclamation public works, for which the landowners are liable, constitute a real lien on their estates and are levied in the same manner and enjoy the priorities of the land tax, ranking immediately after that tax and the respective provincial and communal surtaxes.

The quotas are collected in the same manner as direct taxes.

Chapter IV

On the Consolidation of Scattered Lots

Article 22.

When on territories already classified as first-category drainage, farm-land conversion, or mountain reconditioning circumscrip-

tions, and recognized as land-reclamation circumscriptions within the meaning of the present decree, there are zones in which there is a considerable number of landowners, each of whom possesses two or more lots which are not contiguous, and which, taken separately, do not constitute a suitable farm unit, the consortium to which a concession for the works has been granted, may, if quite essential for the purposes of the land-reclamation scheme, and if previously authorized thereto by the Ministry of Agriculture and Forests, proceed, on the lines laid down in a special plan of rearrangement, to consolidate said lots so as to give to each landowner, in exchange for his several lots, a single property, and, should it be advisable, more than one, better corresponding to the purposes of the reclamation plan.

Any increase or reduction of the total productive area arising from the rearrangement will be credited or debited to the owners in proportion to the initial value of their lands.

Cash equalization payments for any difference in value, plus or minus, of the exchanged lands, should, as far as possible, be avoided, and in no case should exceed 10 per cent. of the total value of the lands belonging to each owner.

In valuing the separate lots account will be taken of any encumbrances which may be removed or created.

Article 23.

From such consolidation the following are excluded, besides holdings already providing suitable farm units:

- 1—lots on which dwellings and farm-houses are erected;
- 2—lands adjacent to buildings of which they are dependencies;
- 3—building lots;
- 4—market gardens, gardens, parks;
- 5—lands required for yards or storage grounds of industrial and commercial establishments;
- 6—lands liable to floods or landslips, or other serious risks;
- 7—lands whose special use, situation, or unusual crop character confers on them a marked individuality.

Article 24.

The rearrangement plan must not contemplate the erection or reconditioning of farm or dwelling-houses, and care must be taken that lands having springs be not assigned to persons other than those who possessed them, and that woods be not exchanged for others presenting marked difference in the kind, quality, and age of the timber.

Article 25.

Real rights, other than predial rights, are transferred to the lands assigned in exchange.

Predial rights are repealed, preserved, or created in accordance with the exigencies of the new arrangement. It is understood that existing rights the maintenance of which is not expressly provided for in the plan, are repealed.

Other rights of usage, not extended to all the lands belonging to the same owner, are transferred only to that part of the property assigned in exchange which corresponds in value to the lands on which said rights existed.

Mortgages not taken on all the lands belonging to one owner, will be inscribed on a portion of the newly assigned property corresponding in value to the lands on which they were taken.

In cases of foreclosure, the property will be foreclosed as a whole, the credit held by the mortgage being allocated only on that portion of the price corresponding to the quota on which the mortgage was taken.

Article 26.

Besides an analytical and annotated description of the rearrangement of the lands, the plan of rearrangement will contain:

- (a) the mention of the lands to be rearranged;
- (b) mention of pre-existing real rights, with the names of those entitled thereto, based on returns made by the owners and on the entries in the public registers, and a detailed statement of the portion of the property on which the rights mentioned in the previous article will be transferred;
- (c) a descriptive list of the predial rights required by the new arrangement, even should they correspond to pre-existing ones.
- (d) a description of the works required in the collective interest for the consolidation of the properties and their more profitable use;
- (e) a statement of the equalization payments, if any, which may be due;
- (f) an estimate of costs and of the manner in which it is proposed to apportion them.

As far as possible the plan will be compiled with the consent of the owners concerned, and is deposited with the chancellery of the Commune in which most of the lands to be consolidated are situated.

Notice that the plan has been deposited is served within fifteen days by registered letter with return receipt on the owners concerned, on the mortgage creditors, and on the other holders of real

rights mentioned under letter (b), special mention being made of the right of appeal, of which in the next article.

Article 27.

Appeal against the plan can be made to the Ministry of Agriculture and Forests within 90 days from the date on which notice has been served on the party concerned, as required in the last paragraph of the previous article. On the expiration of the 90 days the right of appeal is forfeited.

Appeals must be handed in to the chancellery of the Commune with which the plan was deposited, which will deliver a receipt for same.

At the end of the aforesaid period, the Podestà transmits the plan and all the appeals received to the Ministry.

Article 28.

The Minister of Agriculture and Forests provides for the approval of the plan and decides on appeals, after consulting a commission of experts and lawyers appointed by ministerial decree.

Notice of the approval of the plan is served on the consortium; the decisions on appeals are communicated to the parties concerned by registered letter with return receipt.

Opposition to the approval of the plan cannot be made by administrative channels.

The normal jurisdiction of the courts, for the protection of the rights of the parties concerned, holds good.

Verdicts given by the courts cannot however lead to a revision of the plan, but only to the conversion and cash settlement of the rights recognized.

Credits arising from this claim for damages rank ahead of all others.

Article 29.

The approval of the plan leads immediately to the transfers of property and of the other real rights, and to the recognition of all the predial rights provided for in the plan.

Article 30.

If after the approval of the plan natural events should occur of such gravity as to require the modification thereof, the Minister of Agriculture and Forests can, at the request of the consortium, order its revision within a stated period, and if need be can suspend, totally or partially, the execution of the works.

When the new plan has been deposited within the prescribed

period, the procedure set forth under Articles 26, 27 and 28 is followed.

Article 31.

Should disputes be pending or arise between owners, the settlement of which might lead to a different distribution of the lands, and should they be settled by a sentence of the courts before the plan is carried out, the parties can ask for the revision of the plan.

The Ministry of Agriculture and Forests acts on the request after consulting the commission mentioned under Article 28.

Opposition to its ruling cannot be made through administrative channels.

Should the revision of the plan not be allowed, the rights recognized by the courts are converted and settled in cash. The credit arising from such claim for damages ranks ahead of all others.

Article 32.

As a rule, possession of the newly assigned lands is given at the beginning of the agricultural year following on that in which the plan was fully carried out.

Pending delivery, the person in possession of the lands disposes of their products and is responsible for losses, exclusive of those caused by fortuitous events or by *force majeure*.

Delivery terminates leases in course, without entitling to a claim for damages.

All payments to compensate economic loss to the parties concerned in relation to growing crops, the varying degree of fertility of the lands, and other causes, must be made at the time of delivery. Should disputes arise as to the valuation and settlement of the claims for the aforesaid economic losses, the consortium through its experts draws up a description of the status of the lands and provisionally fixes the sum payable on delivery.

Equalization payments are made to the consortium, which pays over the sums received to the parties entitled thereto.

When an equalization payment is due to the owner of a property encumbered with a real right, the sum relating thereto is invested in Government stock and bonded in behalf of the holder of the said right; when due in lieu of real security given on the land, the sum is deposited with a bank designated by the Ministry of Agriculture and Forests, and bonded in behalf of the holder of the security.

Provision for equalization payments may be made through agricultural credit operations under Article 3, No. 2, of the R. Decree Law of 29th July 1927, No. 1509.

Article 33.

Within 30 days of the date of the decision approving the plan of rearrangement the consortium provides for its inscription by the registrar of mortgages in whose district the properties are located.

The consortium also attends to having the changes inscribed on the land-register and to making public the transfer of the mortgages on the newly assigned lands. This is done by a marginal or footnote appended to the original inscription, mentioning the newly assigned land, or portion of it, on which the mortgage is taken.

Article 34.

If in land-reclamation circumscriptions there are zones with a considerable number of small lots belonging for the most part to different owners, the consortium to whom the concession for the reclamation works is granted, may, with a view to converting the said lands into suitable farm units, and if essential for the purposes of the reclamation, compile a plan for the rearrangement of the zone so as to provide, by consolidating the several lots, suitable farm units to be assigned to those of the owners offering the highest price. The starting price for the bids shall be established in accordance with the principles laid down in the first paragraph of Article 42.

The consortium may draft the plan of rearrangement on the supposition that the ownership of the lands used in forming the new farm unit will remain vested in the several proprietors, provided they give satisfactory guarantees that they will undertake in common the cultivation and improvement of the lands at least until such time as the reclamation is completed.

Article 35.

To avoid dismembering farms as a result of the execution of land-reclamation works, or for securing a more satisfactory arrangement of farm units, the consortium may prepare a plan for correcting the boundaries or for rounding off the farms, to be effected by exchanges between the owners concerned.

In so far as applicable, the rules laid down in the several articles of the present chapter hold good for the preparation, approval, and execution of the plan of rearrangement dealt with in this and the preceding article.

Article 36.

The provisions of this chapter apply also to lands pertaining to the State, provinces, and communes.

Should the rearrangement concern lands pertaining to the State,

the plan is approved jointly by the Minister of Finance, and by the Minister of the Interior should the lands pertain to provinces or communes.

Article 37.

Transfers, payments, transcriptions, and generally speaking all steps required in the execution of the provisions of the present chapter are exempted from stamp-duty, and pay a fixed registration and mortgage fee of 10 lire besides the emoluments due to the conservors of mortgages and the dues handed over to the staff of the district tax and land-register offices.

No improvement contribution is due in connection with the execution of the plans for rearrangement foreseen under Articles 22, 34, and 35.

Chapter V

On Works for which the Landowners are Responsible

Article 38.

In land-reclamation circumscriptions the landowners are required to carry out, with the grants provided under Article 8, works of special interest to their own lands, in conformity with the directions given in the general land-reclamation plan, and within the period fixed by the Ministry of Agriculture and Forests.

In first-category land-reclamation circumscriptions, the landowners may be required to employ immigrant peasant families.

Article 39.

Should their continuance interfere with the directions given in general land-reclamation plan, unexpired leases are terminated without compensation.

Article 40.

Those farms within the perimeter of the land-reclamation plan which purpose experimenting, under Government supervision, new systems recognized as conforming to the purposes of the plan, may receive, besides the usual grants mentioned under Article 8, special encouragement awards.

Article 41.

Landowners who do not purpose to carry out themselves the reclamation works for which they are responsible, can ask the con-

sortium to take the necessary steps, and the consortium is required so to do.

Should the landowners not advance in full the financial means needed, the consortium may procure them by credit, but in no case may the sum borrowed exceed 60 per cent of the value of the land to be improved, increased by the value of the improvements, and reduced by the amount of the credits secured by mortgages inscribed prior to the stipulation of the loan.

The credit held by the consortium against the owner of the improved land for the amount borrowed, and generally speaking for all expenditure made in carrying out the works, is secured by a lien on the improved land enjoying priority. This priority only exists when entered in a special register kept by the Mortgage Conservators under the provisions of Article 9, letter (c) of the Act of 5th July 1928, No. 1760. It ranks after that of the Government for the credits mentioned under Article 1962 of the civil code, without prejudice to mortgages and usage rights of all kinds acquired on the land by third parties prior to the said entry.

Article 42.

On the expiration of the period within which the landowners were required to carry out on their lands the works for which they are responsible, or if, prior to said expiry, the execution of the works within the said period is seen to be impossible, the Ministry of Agriculture and Forests, in consultation with the committee provided for under Article 3, may require the consortium to carry out the works at the expense of the owners, or may expropriate the lands of the defaultant owners on behalf of the consortium should it so request.

Compensation for expropriation is fixed on the basis of the net income considered normally obtainable by the owner from the lands to be expropriated under the conditions in which they are found at the date of expropriation, capitalized at the rate of the average yield obtained on 5 per cent consols in the 12 preceding months, with a maximum variation of 0.5 per cent.

Should the consortium not request the expropriation, the Ministry may, nevertheless, order it to be made in favour of others who undertake, subject to the requisite guarantees, to carry out the works required; in this case, compensation for expropriation is fixed in accordance with the principles above mentioned, and on that basis an auction for the sale of the property is held. At the same price, preference is given to the offer made by the owner of other land within the circumscription.

PART III

ON LAND IMPROVEMENT UNCONNECTED WITH A GENERAL
LAND-RECLAMATION PLAN*Article 43.*

Grants may be made by the Ministry of Agriculture and Forests, or facilities allowed in the shape of loans enjoying the Government contribution towards interest payments, to works for the drainage or hydro-agrarian improvement of the lands; for the search, provision and utilization of water for agricultural and drinking purposes; for building and reconditioning farm roads and roads connecting farms and for cable ways which may replace them; for erecting and reconditioning buildings or rural hamlets; for breaking-up lands by machinery or with explosives; for works required for the conversion of thermal into electric power for running land-drainage pumping plants; for improving mountain grasslands; for plantations, and generally speaking all other land improvements which can be carried out for the benefit of one or more estates, apart from a general land-reclamation plan.

Subsidies may also be granted for (a) the erection of electric-power conversion boxes and the laying of fixed or movable wires for the distribution of electric current for agricultural purposes, and the purchase of electric machinery utilizing the power; (b) machinery for breaking-up lands.

Subsidies for the purchase of machinery or other movable goods can only be allowed if the applicant undertakes, and gives adequate guarantees, that he will not use them for other than the purposes agreed on, until the period prescribed by the Ministry has expired.

The Ministry of Agriculture and Forests, in consultation with the agrarian-forestry section of the Provincial Guild Economic Council, may, for each province or section of a province, limit the works entitled to grants or assistance in the payment of interest on loans. After consulting the said section it will fix the boundaries of zones containing grazing-lands described as mountainous.

Article 44.

The Treasury grant for the works referred to in the previous article usually amounts to one third of the cost, but it may be increased to 38 per cent in the case of mountain grassland improvements or when the works entitled thereto are located in South Italy, in the Islands, in Julian Venetia, the Tuscan Maremma, or in Latium.

The Treasury contributes in the proportion of 75 per cent to the cost of building rural aqueducts.

The Treasury contributes to the cost of erecting electric-power conversion boxes or the installation of fixed or movable lines for the distribution of electric current for agricultural purposes to the extent of 45 per cent, and to the cost of electric machinery for the utilization of the said current or of mechanical appliances for breaking-up fallow lands, to the extent of 25 per cent.

Nevertheless, taking into account the estimated results of land improvement, the Treasury grant may be reduced to 10 per cent of the cost of the work.

Article 45.

If the grant or special credit referred to under Article 43 be made to a non-owner or non-holder of the improved lands, and the work, installation, or mechanical appliances subsidized are susceptible of being run for profit, the Ministry of Agriculture and Forests lays down the procedure for fixing the tariffs of usage charges and for their periodical revision, and, if need be, the procedure for purchase by the owners concerned.

In the case of irrigation works, the Ministry can charge the lands susceptible of irrigation with the contribution for improvements provided for under the Articles 48, No. 2, and 56 of the Decree-law of 9th October 1919, No. 2161.

The powers assigned by the present article to the Ministry of Agriculture and Forests are exercised, provided like rights have not been reserved in favour of the Ministry of Public Works at the time of granting the concession for deviating public waters under the provisions of the legislation in force.

Article 46.

Land improvement loans entitled to State assistance toward interest payments are only granted for the works and expenditures mentioned under Article 43.

No change is however made in the case of the agricultural improvement credit operations mentioned under Article 3, last sentence, Nos. 1 and 2, of the Act of 29th July 1927, No. 1509.

If the Treasury contribution to interest payments, when capitalized, is smaller than the grant assignable under the provisions of the previous articles, the difference may be allowed in the form of a grant.

If, on the other hand, the aforesaid contribution should turn

out to be larger, it may be reduced to the amount of the grant assignable.

In the case of the loans referred to under Articles 78 and 80 the full grant may be made, jointly with the contribution to interest charges.

Article 47.

The Ministry of Agriculture is empowered to make or to subsidize the studies and research works, experimental if need be, required to ensure that the works entitled to grants under the provisions of the previous articles are carried out on the most approved lines.

PART IV

ON WORKS AND PREVENTIVE MEASURES FOR THE CONTROL OF ANOPHELES

Article 48.

The suppression of conditions of the soil tending to create or intensify the causes of malarial infection is provided for by:

(a) works to ensure surface drainage and to eliminate stagnant waters;

(b) works for dredging and keeping in good condition still waters;

(c) treatment of uncovered waters for the control of anopheles.

Article 49.

Works and preventive measures for the control of anopheles carried out in land-reclamation circumscriptions during the execution of other works for which the Government is responsible, are considered as complementary thereto and are placed under the same juridical régime.

Those carried out in land-reclamation circumscriptions after the completion of the reclamation works, may be undertaken by the Government, but the whole cost thereof is charged to the owners of the lands on which they are carried out.

When the plan is approved by the Ministry of Agriculture and Forests the work acquires the character and is entitled to the facilities granted to works of public utility, and the owners of the land are required to meet the cost thereof.

In the case of works mentioned under letters (a) and (c) of the preceding article, the Ministry may, however, contribute to the cost by a grant made under the provisions of paragraph 1 of Article 44.

The provisions of Article 21 are applicable to the contribution made by the landowners to that portion of the expenditure uncovered by the grant.

Special regulations will provide the rules for the apportionment of the cost among the landowners responsible for a given work or for a given group of works.

Article 50.

Whoever makes excavations while carrying out public or private works is required to execute at his own care and cost the works required for filling up such excavations and for their surface drainage.

Until such works have been carried out, or should they be admittedly impossible, the person responsible for the excavations is required to carry out works and preventive measures in the vicinity of dwellings for the control of anopheles in conformity with instructions given by the Ministry of the Interior.

Should local conditions make it unnecessary, this obligation may be waived in conformity with an order issued by the Prefect in consultation with the provincial medical officer.

Should the aforesaid obligations not be fulfilled, the Prefect takes the necessary measures at the cost of the defaulter.

Article 51.

Within the limits of the credits allowed by their respective budgets, the following grants will be made:

(a) by the Ministry of the Interior: grants for studies and scientific research on measures for the control of anopheles, contributions towards the cost of theoretical-practical courses for the training of directing and auxiliary experts; awards to medical officers who have distinguished themselves in the organization, direction, and supervision of said preventive measures;

(b) by the Ministry of Agriculture and Forests: awards to the staff, more especially to land-reclamation officials, who have particularly distinguished themselves in carrying out the tasks assigned them in the execution of the aforesaid measures; awards to landowners who, singly or in consortia have actively participated in the measures for the control of anopheles.

Article 52.

Whoever deteriorates or in any way injures conditions resulting from the execution of works and preventive measures for the control of anopheles is liable to the penalties laid down in Article 374 of the Public Works Act of 20th March 1865, No. 2248.

The provisions of Articles 375, 377, 378, and 379 of the afore-said Act are, in so far as applicable, extended to the matters dealt with in the present chapter.

Article 53.

The provisions of the present chapter are applicable to all zones proclaimed malarious, even if located outside the land-reclamation circumscriptions.

PART V

INTEGRAL LAND-RECLAMATION CONSORTIA

Chapter I

Land-Reclamation Consortia

Article 54.

The owners of real-estate benefiting by land-reclamation works may organize in consortia. These consortia provide for the execution, upkeep, and management of the land-reclamation works or for their upkeep and management only.

The consortia may also attend to allotting, collecting, and paying over the cost quotas charged to the landowners, in cases when the land-reclamation works are carried out by a body other than the consortium of landowners.

Article 55.

The consortia are set up by Royal decree, issued at the instance of the Minister of Agriculture and Forests, whenever the proposal for their formation is approved by the representatives of the major portion of the territory comprised within the perimeter.

It is presumed that this majority is attained when:

(a) at the time of the publication of the proposal no opposition has been made to it, or when the opposition advanced, in view of the objects and interests represented by the opponents, is not, in the opinion of the Ministry of Agriculture and Forests, likely to cause serious difficulties to the activities of the consortium;

(b) at the meeting of the parties concerned, called by the Prefect of the Province in which most of the territory is situated, the proposal secures the approval of the majority of those present, providing they represent not less than one-quarter of the territory concerned.

Article 56.

As an exceptional measure, consortia may be set up by act of authority by Royal decree, issued at the instance of the Minister

of Agriculture and Forests, should the said Minister, after ascertaining the absence of any initiative in this direction, consider it nevertheless necessary and urgent to provide through a consortium for the reclamation of a given circumscription.

Article 57.

Several consortia may be set up in one circumscription for carrying out the work should it be found necessary to form separate groups of homogeneous interests. In such cases, a second-grade consortium may be set up by Royal decree at the instance of the Minister of Agriculture and Forests to co-ordinate the activities of the first-grade consortia.

A second-grade consortium may be set up not only for other consortia, but also for public bodies and for public bodies and private persons, consortia, or other parties concerned.

Article 58.

Notice of the territory for which the consortia is formed is served on the public by entry in the public registers.

The regulations will lay down the limits within which entry is required for second-grade consortia.

Article 59.

Land-reclamation consortia are juristic persons, acting within the limits set for their activities by the law and by their articles of association.

In the fulfilment of the purposes for which they are set up, they have the right to levy on the estates affiliated to the consortium contributions which come under the provisions of Article 21.

Article 60.

The consortia are governed by articles of association approved at the general meeting by a majority of those present representing not less than one-quarter of the area comprised in the circumscription. In the absence of this majority, the decisions taken will be valid if at a second convocation they obtain a majority of the votes cast.

The articles of association must be approved by the Ministry of Agriculture and Forests, which decides on any appeals and is empowered to make all amendments in the text of the articles of association adopted.

Article 61.

The Minister of Agriculture and Forests can at any time reserve to himself the appointment of the president of the consortium, and may, if need be, replace the one in office.

He can also appoint a delegate of his own to sit on the board of directors of consortia carrying out works to the cost of which the Treasury contributes.

To ensure continuity in the administrative policies of the consortia during the execution of the works the Ministry may prolong for a period not exceeding twice that prescribed in the articles of association, the period for re-elections within the consortium.

Article 62.

The Government, after consulting the consortia concerned and the Association of Consortia, reserves to itself the right of grouping together the offices, amalgamating or suppressing consortia, and modifying their territorial boundaries, should this be deemed necessary or advisable in the best interests of integral land-reclamation.

Should the measure also affect consortia formed for purposes other than land-reclamation, the Royal decree is issued at the instance of the Ministry of Agriculture and Forests acting in concert with the other Ministries concerned.

Article 63.

Decisions concerning loans and administrative regulations are submitted for the approval of the president of the National Association of Land-Reclamation Consortia, who passes them on both as regards their conformity to legal prescriptions and as regards their merits.

The following matters are submitted to the Prefect for his endorsement as regards their conformity to legal prescriptions:

(a) budget estimates and any variations in same, and final accounts;

(b) main and additional contribution pay-rolls;

(c) decisions to take legal action, except in the case of urgent action for purposes of conservation, when the decision taken must be immediately submitted for the aforesaid endorsement.

(d) contracts for services of collection and holding of funds.

Should the administration of a consortium be wound-up, decisions by which the commissary blocks the budget for a period of more than five years must also obtain the approval of the National Association of Consortia.

When the management of a consortium is taken over by the National Association as an emergency measure the endorsement of the above-mentioned decisions pertains to the Minister of Agriculture and Forests.

Article 64.

Copies of all decisions taken by the consortia, except those dealing only with the execution of measures already agreed on, are forwarded each fortnight to the Prefect of the province.

Should the Prefect, on examining these decisions, note irregularities which cannot be settled by the exercise of the powers conferred on him under the above Article 63, he shall refer them for the requisite action to the Ministry of Agriculture and Forests, and he shall advise the Ministry of the Interior to that effect.

Article 65.

The Minister of Agriculture and Forests, acting in concert with the Minister of the Interior, may, in special cases, confer on the President of the National Association of Consortia in lieu of the Prefect, the duty of seeing that the acts mentioned under letter (a) of Article 63, of which a copy must in any case be sent to the Association, conform to the requirements of law as also the decisions taken by the deputies provisionally elected by the consortia, until such time as the articles of association are approved and the regular boards of management formed.

In the cases contemplated by this article and by the previous Article 63, the endorsement or approval are held to be granted when action has not been taken within 30 days of the reception of the proceedings.

The parties concerned can appeal to His Majesty's Government, whose decision is final, against measures taken by the Prefect and the President of the Association within 30 days of the date on which notice of same has been served on them.

Article 66.

With the exception of the tasks delegated to the Association of Consortia, it pertains to the Prefect and to the Minister of Agriculture and Forests to supervise the consortia and to act, in the place of others if need be, so as to ensure their proper working and the regular attainment of the objects for which they were set up.

Article 67.

The Ministry of Agriculture and Forests can entrust to consortia set up for carrying out land-reclamation works the functions of technical delegate mentioned under articles 14 and 15 of the Act of 16th June 1927, No. 1766, for the execution of works ensuring the formation of rational farm units on lands obtained by liquidating rights to the common use of privately-owned lands (*usi civici*).

Article 68.

When land-reclamation works are undertaken by persons other than the consortium of owners and when the territory to be reclaimed lies entirely within the perimeter of a consortium formed for the execution, upkeep, and management of public or private works subsidized by the Treasury, the said consortium is required to act as a consortium for the apportionment, collection, and paying over of the cost-quotas charged to the owners concerned.

The discharge of these duties is optional when only part of the area to be reclaimed lies within the boundaries of the consortium.

Should a special consortium be formed to attend to the contributions after the plan for the apportionment of costs has been approved, the collection of contributions as laid down under the pay-roll is not suspended pending proceedings for its formation, until such time as the new body is in a position to pay out the contribution quotas.

Article 69.

A decree issued by the Minister of Agriculture and Forests acting in concert with the Minister of Justice, may empower the staff of the land-reclamation consortia to draw up contracts on behalf of the consortia in the form of public administrative deeds.

This authorization may only be given in the case of consortia which have undertaken public works of marked importance, and when the persons to whom the authorization is granted, besides a degree in law, have obtained from the R. School of Political Sciences of Padua a diploma authorizing them to discharge administrative duties on behalf of the consortia.

The facility provided for by the present article will continue to be enjoyed by those consortia whose staff has already been empowered to draw up contracts in the form of public deeds.

Article 70.

The persons to whom the consortia entrust the supervision and care of the works are empowered to take down particulars for the issue of a summons against persons infringing the regulations for the use of water-courses and mountain-lands, provided they have taken an oath before the magistrate of the district in which the consortium has its offices.

Chapter II

Land Improvement Consortia

Article 71.

Consortia for the execution, upkeep, and management of land-improvement works eligible for grants under Article 43 can be set up in the manner indicated for land-reclamation consortia.

Land-improvement consortia are subject to the provisions of Articles 21, last paragraph, 55, 60, 62, 66 and 67.

Article 72.

Consortia for carrying out land-improvement works can submit for the approval of the Minister of Agriculture and Forests the plan for the apportionment of the cost of the work, stating the total amount of the contribution charged to each owner, and the maximum amount of such contribution collectable annually.

When the plan has been approved, and the contribution charged to each member of the consortium duly entered on the special register mentioned under Article 9 of the Act of 5th July 1928, No. 1760, the contributions are guaranteed, within the limits of the amounts provided for in the plan, by a priority.

The priority ranks immediately after that of the land-tax and the respective provincial and communal surtaxes but may not prejudice mortgage and other real rights of all kinds acquired on the land by third parties prior to the entry on the register.

Article 73.

The consortia enjoying the priority provided for in the preceding article must send in their contribution pay-rolls and collection contracts for endorsement by the Prefect, as in conformity with legal requirements.

PART VI

FINANCIAL MEASURES

Article 74.

The Deposit and Loan Bank (*Cassa Depositi e Prestiti*) is authorized to grant, under the rules regulating that bank, loans to the concessionaires and executors of integral land-reclamation works out of available funds mentioned in the R. Decree-law of 13th June 1926, No. 1064, enacted on 2nd June 1927, No. 950, and by the Act of 14th June 1928, No. 1398.

Savings banks, land-credit institutes, and generally speaking all

credit and provident-fund banks subject to government supervision, may, within the limits laid down by their articles of association or by decree of the Ministry of Agriculture and Forests, or of the Ministry of Finance as the case may be, grant to concessionaires and executors of integral land-reclamation works, loans secured by surrender of the Government contribution annuities, or by delegating the contributions charged to the landowners.

For the collection of their credits, banks making the loans subrogate the rights pertaining to the borrowers, under the provisions of Articles 21, 41, 59 and 72 of the present decree.

Article 75.

Should the consortia not secure the loans mentioned in the preceding article, or should they not secure them for the entire amount required, they may be authorized by the Minister of Finance to issue interest-bearing certificates repayable by annuities, until the nominal value of the said bonds has been extinguished.

On the other hand, should loans have been obtained for the entire cost of the work, such authorization may not be granted, unless it be proved that by the issue of such certificates provision is made for extinguishing the loans.

Certificates may be issued in several series with different periods of amortization. The period for amortization may not exceed 50 years.

Article 76.

Several consortia may associate to offer a single credit certificate, should they be empowered so to do by R. Decree issued at the instance of the Minister of Agriculture and Forests.

The provisions of the commercial code regulating the issue of registered guaranteed bonds debited to communes or provinces are applicable to the registered certificates debited to land-reclamation consortia.

Article 77.

The National Insurance Institute, the National Social Insurance Fund, the National Labour Bank, the Savings Banks, Pledge Banks (*Monti di Pietà*), and all credit and provident fund institutes subject to government supervision are authorized, singly or associated in consortia, to purchase the bonds and certificates issued by the consortia.

Tax-collectors are authorized to give the security required for the service of collection, using for this purpose the aforesaid bonds and certificates, as also the delegated contributions payable by land-

owners, provinces, and communes towards the cost of land-reclamation.

Article 78.

The Deposit and Loan Bank is authorized, under the rules regulating that institute, to grant loans to communes for the execution of mountain grazing-land improvement works on lands pertaining to them, out of the available funds mentioned in the R Decree law of 13th June 1926, No. 1064, enacted on 2nd June 1927, No. 950, and in the Act of 14th June 1928, No. 1398, amortizable within a period not exceeding 30 years, and with contributions towards the payment of interest charges written into the budget of the Ministry of Agriculture and Forests at the rate of 2 per cent per annum, but reckoned on the basis of a global interest rate of 4 per cent, whatever the actual rate payable on the loans may be.

On the amounts thus loaned, the Deposit and Loan Bank will receive during the first five years interest payments only; during the following 25 years an amortization quota will be added to the interest payments on the debt.

The borrowing communes are however entitled to extinguish their debt at an earlier date.

Article 79.

To facilitate the execution of works for improving mountain grazing lands, savings banks, first category pledge banks, and other credit, provident, and savings institutes, are authorized to make to communes, agricultural corporations (*università*), and agrarian communalities, to public institutions and to corporate bodies in general, loans amortizable over a period of not more than 30 years' duration.

These loans are guaranteed by mortgages on the capital wealth of the borrowing body, or, in the case of communes, by delegating surtaxes, revenues from estate, or other sources of income.

The provisions of the last paragraph of Article 74 are extensible to loans contemplated by the present article and by the preceding one.

Article 80.

The Treasury may contribute to the interest payments on the loans mentioned in the preceding article at a rate of interest not to exceed three lire per annum on each hundred lire of capital loaned. The loan, however, must not exceed the difference between the cost of carrying out the improvement and the grant made under the provisions of the preceding Article 44.

The Treasury grant towards the payment of interest may be made by capitalizing the annuities within the limits of the available amount of the fund annually allowed for the grants referred to in the preceding articles.

Article 81.

In quite exceptional cases His Majesty's Government is authorized to guarantee the capital and interest of bonds issued by landowners' consortia and by corporate bodies formed for purposes of land-reclamation, for the execution thereof, and the guarantee is given by R. Decree, issued at the instance of the Minister of Agriculture and Forests acting in concert with the Minister of Finance, after duly ascertaining the safety of the transaction.

The Minister of Agriculture and Forests may guarantee, for a total amount not to exceed 10 million lire, loans made through the agency of the National Association of Land-Reclamation Consortia to recently formed consortia for meeting their initial working expenses.

Article 82.

The Minister of Agriculture and Forests is empowered to authorize non-profit-making savings banks and provident institutes to join the consortia referred to in the second paragraph of Article 57 in derogation from all or any provisions of laws, articles of association, and regulations.

Article 83.

Even before the work is begun, the contributions to the cost of land-reclamation works may be surrendered or pledged in behalf of the purveyor of the capital required for carrying out the work.

In such cases, if the sums are paid in amounts corresponding to the contribution quota to costs as determined by the progress made with the work, assessed by the qualified Civil Engineers' Office, in accordance with the rules laid down in the deed of concession, the contributions remain bonded in behalf of the person to whom the rights are surrendered or the creditor in whose behalf they are pledged up to an amount equivalent to the sum he has supplied, even if the work should not be completed or if the concessionaire should lose his rights to the concession.

Article 84.

The person to whom the consortial contributions or the land surtax has been delegated as security for credits connected with the

execution of land-reclamation works, may transfer the rights arising from the delegation by endorsing the same.

The endorsement must be written and signed by the endorser on the deed, and notice thereof must be served on the agent charged with collection.

The concessionaires, even if they be not landowners' consortia, are entitled to delegate their right to the contributions levied on the properties concerned in order to guarantee loans secured for the execution of the works.

Should this right be exercised, the National Association of Consortia is required, at the request of the concessionaire, to take the necessary steps to ensure the collection of the contributions.

Article 85.

If, instead of delegating the contributions levied on the landowners, the concessionaire of land-reclamation works prefers to surrender the contributions, but is unable, without incurring excessive expense, to serve the notice required under Article 1539 of the civil code, the Minister of Agriculture and Forests may provide that notice of the surrender be given by publishing a summary thereof in a daily paper of the province, and that notice be served on the Prefect qualified to give executive force to the rolls, and on the agent charged with their collection.

The surrender will only take effect for all legal purposes after the aforesaid formalities have been complied with.

PART VII

FISCAL MEASURES

Article 86.

While maintaining the land-tax exemptions granted by the laws in force for forest plantations and for the installation, improvement, and regeneration of orchards, exemption therefrom is granted for a period of 20 years on increases of income derived from lands reclaimed in execution of the present decree. The twenty-year exemption period dates from the day on which the Ministry of Finance, in consultation with the Ministry of Agriculture and Forests, shall acknowledge that the reclamation works have led to an improvement entailing a variation in the nature of the utilization or in the classification of the reclaimed areas. The same procedure will be followed for successive improvements ascertained on the same lands, or on other parts of the circumscription, until

notification of the completion of the reclamation works themselves, referred to in the third paragraph of Article 16, after which no further twenty-year exemption period can begin under the terms of the present decree for the same land-reclamation work.

Article 87.

The interest payments on loans and on temporary advances obtained for the direct execution, or for the execution by concession, of Government land-reclamation works, or for the execution of irrigation works for which the consortia are responsible, are exempted from income tax (*ricchezza mobile*).

The National Association of Consortia certifies, by a declaration drawn up on unstamped paper, that the sums are assigned for the above purpose.

Article 88.

All deeds drawn up in behalf of the consortia and of the executors of the integral land-reclamation works are subject to the usual fiscal treatment.

The fiscal privileges provided by previous laws on behalf of the consortia remain in force also as regards land-drainage works and the reconditioning of mountain lands, whether they be undertaken by consortia or by other corporate bodies or private persons.

Article 89.

The transcription of the acts fixing the boundaries of the areas subject to contributions and of the territory of the land-reclamation consortia is made on payment, in addition to the usual mortgage emoluments, of a single fee fixed at 10 lire, even should the transcription relate to more than one estate or farm.

Article 90.

The land-register (*catasto*) offices are required to supply to the consortia and to the concessionaires of the works any information and data they may require for giving effect to the present decree, on reimbursement of the actual expenses incurred.

The fees due to notaries for authenticated copies of deeds and contracts for land conveyancing, required for bringing up to date the register of the land-reclamation and land-improvement consortia, are reduced to one-third of the usual tariff.

PART VIII

SUNDRY MEASURES

Article 91.

To the exclusion of all remedy at law, the Government administration is qualified, even should contests arise, to decide whether the works for carrying out Government land-reclamation and for their upkeep, comply with the needs they are to meet, with technical exigencies, and with the requirements of good workmanship.

No right to compensation from the Government arises from the lack or insufficiency of the advantages obtained from the execution of the works.

Article 92.

The measure taken for the classification of a land-reclamation circumscription is equivalent to a declaration that the Government works are of public utility.

This holds good also for the decree approving plans for land-improvement works for which the owners are responsible, carried out within a land-reclamation circumscription.

In the case of land improvements executed outside a land-reclamation circumscription, the declaration that they are of public utility is implicit in the approval of the plan and the grant of the subsidy.

Article 93.

Real estate required for land-reclamation works may be expropriated or temporarily occupied, or the enjoyment thereof may be partially or totally suspended, in accordance with the provisions of the decree of 30th December 1923, No. 3267, when they are held necessary for the execution of the said works.

In the case of lands on which the plantation of new woods is proposed or the regeneration of deteriorated woods, the Ministry of Agriculture and Forests will decide whether it is necessary to provide for their expropriation, or for their temporary occupation, or for the suspension of enjoyment thereof.

The compensation allowed is fixed in accordance with the rules laid down by the law on expropriations for purposes of public utility, except in the case of reafforestation works or the regeneration of deteriorated woods, which are subject to the rules for fixing compensation laid down in Article 113 of the R. Decree of 30th December 1923, No. 3267.

Article 94.

When the plans for works proclaimed of public utility present the characteristics required by Article 16 of the law of 25th June 1865, No. 2359, for drawing up a detailed plan of expropriation, the approval of the said plans is equivalent, to all effects and purposes, to the approval of a detailed plan.

The offices of the Civil Engineers and of the National Forestry Militia, within their respective competencies, fix the compensation payable for real estate situated within their circumscriptions for which the owners would not accept the compensation offered, and thereafter action is taken in accordance with Articles 48 *et seq.* of the act of 25th June 1865, No. 2359, and Article 67, letter (d) of the decree of 9th October 1919, No. 2161.

Article 95.

Concessionaires of integral land-reclamation works and grants are required to pay over, in the measure requested by the conceding administration, the sums required to meet the cost of supervision and the cost of studies and investigations made in connection with the works for which the concession is granted.

These sums will be paid over to the treasurer and entered in a special chapter opened in the budget of receipts.

To meet expenditure arising under paragraph 1 of the present article a special credit will be opened in the estimates of expenditure of the Ministry of Agriculture and Forests.

Article 96.

Roads connecting the farms of several owners with public highways or roads open to public transit, are themselves open to public transit if the Treasury has contributed to the cost of building them by a grant provided for under Article 44.

Article 97.

The execution of integral land-reclamation works in zones proclaimed of military importance, is provided for after obtaining the *nulla osta* of the military authorities.

Article 98.

The Ministry of Finance, acting in concert with that of Agriculture and Forests, is authorized to sell, to grant on perpetual lease, and in general to alienate by private treaty and without limit of value, national estates lying within first-category land reclamation circumscriptions, if said alienation be advantageous to the purposes of land-settlement.

Article 99.

Alienation of a part of the lands obtained by the liquidation of common rights (*usi civici*) and assigned to communes, agricultural corporations (*università*) and other agrarian associations, or owned by those bodies, is allowed, provided they be lands classified with those suited for cultivation, for the sole purpose of securing the capital required for the reclamation and division of the remaining lands, in conformity with the provisions of the Act of 16th June 1927, No. 1766.

Alienation is effected in accordance with the rules regulating the sale of communal estates.

Article 100.

The proceeds obtainable from public land-reclamation works belong to the Government, which may grant them to the concessionaire for the duration of the work.

When, within the meaning of Article 16, the several lots are completed the part of said proceeds relating to works for which it is responsible is made over to the maintenance consortium.

The same provisions hold good for receipts from fines prescribed by the existing acts for the protection of public land-reclamation works, except those arising from offences against the forestry laws, to which the rules now in force remain applicable.

Article 101.

The increased value accruing to the lands from the execution of land-reclamation works does not lead to increases in rent charges, taxes, and other perpetual charges to which the lands are subject.

Should the charge consist in a share of the products, it must be reduced to a fixed quota equivalent to the average quantities supplied during the last ten years preceding the date at which the land-reclamation or improvement works were begun.

The above provisions do not apply, should the parties have already come to an agreement on the extent of the charges, in view of the reclamation works.

PART IX

SPECIAL, TRANSITORY, AND FINAL MEASURES

*Chapter I**Special Measures**Article 102.*

The expenditure still to be made for completing the drainage of the Lake of Bientina and the adjacent swamps, authorized by Article 3 of the Grandducal Decree of Tuscany, of 18th March 1853, will continue to be charged to the Treasury, the contribution now paid by the owners of the reclaimed lands remaining unaltered.

Article 103.

The Treasury contributes to the maintenance cost of the works now existing in the Pontine land-reclamation circumscription with a fixed, unvarying annuity of L. 185,685.00.

Article 104.

Works executed with funds authorized by the Act of 19th July 1906, No. 390, for repairing the losses caused by the eruption of Vesuvius in 1906 and by the floods following on the works for reclaiming the torrents of Somma and Vesuvio, and for the consequent hydraulic and forestry reconditioning works, are charged in full to the Treasury.

The cost of the works for reclaiming the torrents of Somma and Vesuvio, executed or to be executed with funds granted under the Act of 30th June 1909, No. 407, and subsequent ones, is apportioned as regards eight-tenths to the Treasury and as regards two-tenths to the landowners concerned.

Article 105.

The list of estates comprised within the perimeter of the properties concerned in the reclamation works of Somma and Vesuvio is drawn up by the Ministry of Agriculture.

The entire circumscription is divided into two basins corresponding one to the western slope and the other to the northern slope of Vesuvius.

The owners of the farms comprised within said perimeter contribute to the quota of costs chargeable to them in accordance with the provisions of the previous article, by means of a tax levied on

their farms classified in zones or classes according to the advantages they derive from the said works.

Until the lands have been classified according to the advantages obtained, the contribution charged to the parties concerned is provisionally apportioned on the same basis as the assessment of the chief tax on lands and buildings comprised within the perimeter of the two basins.

Article 106.

The Government provides for the maintenance of the works executed by the Government in the Vesuvian zone.

When the completion of a lot is proclaimed, in accordance with the provisions of Article 16 of the present decree, the maintenance costs for the completed lot are met half by the Treasury and half by the owners concerned.

The costs charged to the landowners are apportioned in the manner provided in the preceding article.

Chapter II

Transitory Measures

Article 107.

Territories which, at the date when the present decree takes effect, are classified as first-category hydraulic reclamation circumscriptions for the purposes of the codified law of 30th December 1923, No. 3256, or as farm-land conversion circumscriptions for the purposes of the R. Decrees of 18th May 1924, No. 753 and 29th November 1925, No. 2464, are to be considered as land-reclamation circumscriptions within the meaning of the present decree.

Within a period not to exceed one year, the Ministry of Agriculture and Forests will determine which of these lands are to be classified as first-category circumscriptions.

These may not, however, include circumscriptions not already subject to the laws on farm-land conversions of public interest.

Within the same period the Ministry, should the conditions foreseen under Article 1 exist, may include the following in the land-reclamation circumscriptions:

(1) areas on which farm-land conversion roads are being or are to be built under the provisions of the Act of 24th December 1928, No. 3134;

(2) mountain basins bounded within the meaning of Part II of the codified law of 30th December 1923, No. 3267;

(3) circumscriptions on which irrigation works are being carried out and, if necessary, irrigation circumscriptions on which the work has already been finished, should the maintenance and regular management of the said works be of importance in the public interest, and should the nature of the works themselves be such as to make the rules laid down in Part II of the present decree applicable thereto.

Article 108.

For a period of five years from the date on which the present decree takes effect, the Ministry of Agriculture and Forests is empowered to grant a concession to juristic or physical persons for studies and research work, experimental if need be, required for drawing up the general plan and projects for land-reclamation, and the compilation of the said plan and projects.

Should the Ministry avail itself of this right, the studies, research, and projects will be held an integral part of the works to be executed, and will be the subject of a separate concession. The expenditure relating thereto is advanced by the Treasury, which will recover it on the quota charged to the parties concerned when providing for the concession of the land-reclamation lots.

The consortium of landowners, and in its absence the provincial federation of the agriculturists of the province in which the major portion of the circumscription lies, will be called upon to give their opinion on plans and projects drafted under a concession by persons other than the landowners themselves, taken singly or associated in a consortium.

Article 109.

If, before the present decree takes effect, a company or individual contractors have obtained a concession for hydraulic reclamation works, farm-land conversion works, and hydro-forestry reconditioning of mountain basins, the Ministry of Agriculture and Forests may extend the concession to the remaining lots.

The consortium of landowners, or the owner of the major portion of the lands comprised within the perimeter subject to contributions, may however be authorized to replace the first concessionaire for the execution of the successive lots, subject to refunding useful expenditure on projects, preparatory enquiries (*istruttoria*), equipment for the work, and the installation of building yards.

The amount to be refunded is fixed by a decree of the Ministry of Agriculture and Forests, which can also require the consortium to give adequate security for the effective execution of the works.

The right to be refunded for useful expenditure at the cost of the consortium which intends to execute the work, belongs also to persons who, although they have not yet secured the concession of a lot, have been authorized to draw up projects by a ministerial measure issued under Article 36 of the codified law of 30th December 1923, No. 3256.

Article 110.

Works for which the Government is responsible and which, when the present decree takes effect, have been the subject of concessions, are regulated by the preceding laws.

Those same laws regulate the grants for land-improvement works for which application has been made at least 30 days before the present decree takes effect.

Article 111.

The general plan referred to under Article 4 must also be drawn up or completed for land-reclamation works begun under the rules laid down by preceding laws.

Nevertheless, the Ministry of Agriculture and Forests may allow the said reclamation works to continue while awaiting the compilation or completion of the plan.

Article 112.

In the provinces of Trent and Bolzano the land pooling operations already begun before the present decree takes effect, continue to be regulated by the rules actually in force, if the appointment of the local commissary has already been published.

The Minister of Agriculture and Forests, acting in concert with the Minister of Justice, will take steps to co-ordinate such rules with the administrative and judicial system of the Kingdom.

Article 113.

Land-improvement consortia, legally constituted before the present decree takes effect, which are carrying out works or amortizing loans, guaranteed by delegating the contributions payable by the consortium, preserve the right to collect the contributions with the priorities and according to the provisions of the preceding laws, within the limits of the amounts required for completing the works and extinguishing the loans connected therewith.

Article 114.

With reference to measures to be taken under the provisions of Article 107, the Minister of Agriculture declares the character of the consortia formed under the pre-existing laws for the execution

or maintenance of works contemplated by the present decree, so as to distinguish land-reclamation consortia from land-improvement consortia.

Both the land-reclamation and the land-improvement consortia are required, within two years of the date on which the present decree takes effect, to provide for the revision of their articles of association in conformity with the new legislative exigencies.

The National Association of Consortia will see that this requirement is complied with.

Article 115.

The measures now in force which confer on the consortia the right to avail themselves of the services of direct tax-collectors for the collection of the contributions, are extended to all other persons who have obtained or may obtain a concession for the execution of public works foreseen by the present decree.

Article 116.

The proceedings of the consortia which, under the provisions of Article 63 of the present decree should be submitted for the approval of the National Association of Consortia, but which at the date when the decree comes into force are in the hands of the prefects, will be endorsed by the latter in conformity with the procedure prescribed by preceding laws.

Article 117.

The 20-year exemption from the land tax on increases of income obtained from reclaimed lands, mentioned under Article 86, is extended to hydraulic reclamation works executed by private persons independently of a Government deed of concession and without Treasury contributions to the cost, provided they correspond to the purposes and are of the character contemplated by the present decree.

The applicability of the 20-year exemption is ascertained, at the request of the parties concerned, by the Ministry of Agriculture and Forests. The date from which the 20-year exemption starts is fixed in accordance with the rules laid down in Article 86.

Article 118.

Within five years of the date on which the present decree comes into force the advantages it assures to land-reclamation works can be allowed to works which have been certified finished prior to the publication of the codified law of 30th December 1923, No. 3256, limited however to those not authorized by the laws then in force,

or the need of which could not be foreseen at the time when the main reclamation works were carried out.

The date at which the 20-year exemption from the land tax on increases of income obtained from reclaimed lands begins to run is determined in accordance with the provisions of Article 86.

Article 119.

The following measures are repealed: the R. Decree of 2nd October 1922, No. 1747 and the R. Decree of 13th August 1926, No. 1907, on irrigation; the R. Decree of 30th December 1923, No. 3256, on the reclamation of swamps and marsh-lands; the R. Decree-law of 5th February 1925, No. 166, exonerating communes from contributing to the cost of land-reclamation; the R. Decree of 18th May 1924, No. 753, and the Act of 29th November 1925, No. 2464, on farm-land conversions of public interest: the Act of 31st March 1930, No. 280, on the grant of contributions for the mechanical breaking up of fallow lands.

The following articles are also repealed:

Articles 92 to 99 of the R. Decree of 30th December 1923, No. 3267, on mountain woods and lands;

Articles 2, 7, 8 of the R. Decree-law of 29th July 1925, No. 1315, containing measures for encouraging motor-ploughing and electro-tillage;

Articles 3, 4, 6 of the R. Decree-law of 7th February 1926, No. 191, on the concession of hydraulic and land-reclamation works;

Article 52 of the R. Decree-law of 7th February 1926, No. 193, on the building of workmen's dwellings;

Articles 1 to 6, 8 to 17, 19 to 21, of the R. Decree of 20th May 1926, No. 1154, on irrigation works in South Italy and the Islands;

Articles 1, 2, 3, 4, and 5 of the Act of 16th June 1927, No. 1042;

Articles 3, 1st and 2nd paragraph, 4, 5, 1st and 2nd paragraph 6, 8, 1st paragraph, 10, 11, of the Act of 24th December 1928, No. 3134 laying down measures for integral land-reclamation;

Articles 1 to 18 and 21 to 22 of the R. Decree of 26th July 1929, No. 1530, containing new provisions on the subject of integral land-reclamation;

Article 4 of the R. Decree-law of 24th July 1930, No. 1146.

Article 120.

By a separate measure His Majesty's Government will proceed, under the provisions of Article 10 of the R. Decree-law of 29th

November 1925, No. 2464, to co-ordinate the laws on the agricultural reclamation and settlement of the Roman Ager, and the measures extending those laws to other territories, with the rules contained in the present decree.

The rules contained in Part V are however applicable from now onwards to the consortia set up under the said laws.

Chapter III

Final Measures

Article 121.

As from the 1st July following the day on which the present decree takes effect, all expenditure allowed in connection with the execution of integral land-reclamation works, as well as the contributions and grants allowed in aid of same, are classified under the four following heads to which correspond a like number of chapters entered annually in the budget of payments of the Ministry of Agriculture and Forests;

(1) Land-reclamation works for which the Government is responsible, and expenditures on studies, research, and the compilation of the respective general plans and projects, as provided in the preceding Articles 2 (letters *a, b, c, d, e, f, g, h*) 6 and 108, to be carried out under the direct care of the Government; capital contributions for the same works and studies carried out under concessions:

(2) annuities for contributions to the aforesaid works and expenditures, provided for by concessions granted under the provisions laid down in the preceding Articles 13, 108, and 109;

(3) grants payable in a capital sum for land-improvement works for which private parties are responsible, whether they be obligatory in accordance with the provisions of the preceding Articles 2 (last paragraph) and 38, or facultative under the provisions of Article 43. Grants and expenditures for studies and research, awards for promoting experimentation, within the land-reclamation boundaries, of new agrarian arrangements recognized as in conformity with the purposes in view (Articles 40 and 47);

(4) annuities for grants and awards to the aforesaid works of land-improvement.

A decree of the Minister of Finance, issued jointly with that of the Minister of Agriculture and Forests, will provide for the approval of the schedule under which each of the authorizations now in force will be transferred to one or more of the four groups

above mentioned, in accordance with the principles of the new classification.

The Ministry of Finance is authorized to provide by a decree of its own for the variations in the budget of liabilities of the Ministry of Agriculture and Forests made necessary by the present measures.